

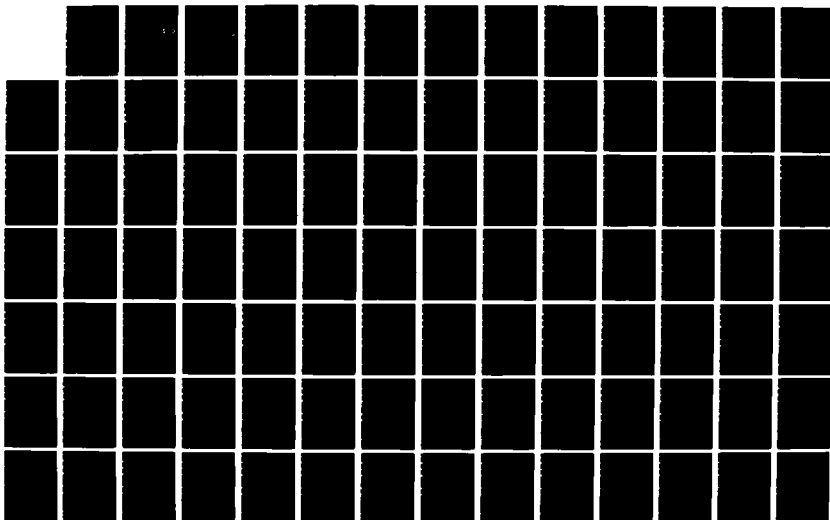
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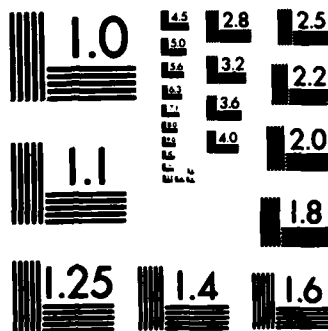
THE NEXT GENERATION SENIOR MILITARY LOGISTICIAN: AN
EMPIRICAL STUDY OF UN (U) AIR FORCE INST OF TECH
WRIGHT-PATTERSON AFB OH SCHOOL OF SYST J K BEALS
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THE NEXT GENERATION
SENIOR MILITARY LOGISTICIAN:
AN EMPIRICAL STUDY OF UNITED STATES
AIR FORCE LIEUTENANT COLONELS

THESIS

John K. Beals
Captain, USAF

AFIT/GLM/LSM/87S-3

DEPARTMENT OF THE AIR FORCE
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AFIT/GLM/LSM/87S-3

THE NEXT GENERATION SENIOR MILITARY LOGISTICIAN:
AN EMPIRICAL STUDY OF
UNITED STATES AIR FORCE LIEUTENANT COLONELS

THESIS

Presented to the Faculty of the School of Systems and Logistics
of the Air Force Institute of Technology

Air University

In Partial Fulfillment of the
Requirements for the Degree of
Master of Science in Logistics Management

John K. Beals, B.S.

Captain, USAF

September 1987

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John K. Beals

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Abstract

There has been interest in the issue concerning the qualifications of senior military logisticians and their ability to handle the totality of today's logistics system. Captain Zavada assessed the qualities of Air Force colonels serving in logistics career fields one year prior to this research. Her study was based on a model of the professional military logistician created by Captain Allan Overbey. This research extends the research of Zavada and Overbey by applying Overbey's model, called the AFIT Model, to the next generation of senior military Air Force logisticians; lieutenant colonels. The experience and qualities of lieutenant colonels currently serving in logistics related career fields were assessed and evaluated to determine how logisticians fit the AFIT Model. The results of the analysis of the lieutenant colonels was then compared to the results of an analysis on the colonels studied by Zavada. The same survey used by Zavada was used to gather background information on the lieutenant colonels. The same weighting system designed by Zavada, using a dichotomous scoring method, was used to score the respondents against the AFIT Model based on their background information. A score of 100 indicated a "perfect fit" to

the AFIT Model. There were only 3 perfect scores out of 939 returned surveys.

This research provided extensive information about the experience and qualities of both colonels and lieutenant colonels in Air Force logistics positions. It compared these two groups, showing their similarities and differences, and gave possible reasons for the differences identified. Recommendations were made for further related research to determine if the experience and qualities of today's senior logisticians meet current goals, or, if guidance needs to be created to "mold" future logisticians to meet future Air Force needs.

THE NEXT GENERATION SENIOR MILITARY LOGISTICIAN:
AN EMPIRICAL STUDY OF
UNITED STATES AIR FORCE LIEUTENANT COLONELS

I. INTRODUCTION

General Issue

The qualifications and experience of senior United States military logisticians have not yet been determined. Military logisticians play a vital role in planning and integrating a nation's defense resources. The United States must be prepared to meet the challenges of any kind of military conflict it may encounter. This would require the ability to create and sustain effective military operations.

There has been an on-going debate among the logistics community regarding the qualifications and experience of today's senior Air Force logisticians. A main concern is whether a senior logistician should be a specialist or a generalist (13:1). Lieutenant General Leo Marquez brought this issue to the forefront when he expressed concern about whether today's senior military logisticians could manage the totality of a complex logistics system. Lt. Gen. Marquez noted that a deficiency of experienced logisticians could be attributed to "stovepiping", or logistics officers

remaining in their respective specialty areas (e.g. maintenance or supply) throughout their careers (7:10).

Several attempts have been made to develop a formal career development plan to produce experienced and qualified logistics managers, however, none has ever been adopted. The most recent of these plans was created by the Air Staff in 1985 as a result of Lt. Gen. Marquez's interest in a formal career development plan for Air Force military logisticians. This new plan required at least 20 percent of the officers in the logistics specialty to serve in at least two logistics fields before attaining the rank of colonel (13:2). The final outcome of the plan has been to promote cross-flowing of officers between the logistics functions with no resulting formal career development plan, and no means of tracking the percentage of experienced or multi-disciplined logisticians (13:2).

Specific Problem

Research is needed to determine the qualifications and experience level of the next generation of senior Air Force logisticians. For the purpose of this research, the next generation of senior Air Force logisticians will be limited to lieutenant colonels. Furthermore, the concern that possibly too many logistics officers are tending to specialize should be addressed. A research study was performed to investigate the qualities and experience of

current senior Air Force logisticians (colonels). To date, no research addresses the qualifications of the next generation of senior logisticians.

Research Objectives

The purpose of this research is to achieve the following objectives:

1. Determine the qualifications and experience of the next generation of senior Air Force logisticians, specifically, lieutenant colonels currently serving in logistics related positions.
2. Identify the similarities and differences in qualifications and experience between Air Force colonels and lieutenant colonels serving in logistics related positions.

Investigative Questions

The following investigative questions were used to achieve the research objectives listed above:

1. What are the experience, education/training, and professional attributes of Air Force lieutenant colonels currently in logistics career fields?
2. How do Air Force lieutenant colonels currently serving in logistics related functions fit the AFIT Logistician Qualification Model, hereafter referred to as the AFIT Model?
3. Do Air Force lieutenant colonels currently in logistics career fields view themselves as generalists or

specialists? How does that opinion compare to the respondents' AFIT Model scores?

4. How do the experience, education/training, and professional attributes of Air Force lieutenant colonels currently in logistics career fields compare to those of Air Force colonels in logistics career fields? If differences exist, what are they and what could they indicate?

Scope

For the purpose of this study, a next generation senior Air Force military logistician is defined as a lieutenant colonel (O-5) who possessed a duty AFSC in one of the following logistics areas: 40XX (aircraft maintenance), 60XX (transportation), 64XX (supply), 65XX (procurement), 66XX (logistics planning), 0046 (Director of Logistics), and 0096 (Deputy Commander for Resource Management). These AFSCs were identified in earlier research by Zavada as having duties directly related to the logistics functions of the Air Force (13:36). Lieutenant colonels were defined as the next generation of senior logisticians so that they could be compared, as a group, to the colonels surveyed by Zavada in 1986. Surveys were sent to the entire population of lieutenant colonels who possessed any one of the above duty AFSCs as of 07 May 1987. The names and addresses for this population were obtained from the ATLAS database. A consensus method of sampling was used to be consistent with Zavadas sampling method so that a comparison between the two

groups would be meaningful. Furthermore, since some of the AFSCs sampled had a relatively small population, a consensus survey was necessary to insure all the AFSCs mentioned above would be adequately represented.

The analysis was based on the dimensions, categories, and elements identified by Zavada and displayed in the AFIT Model. Figure 1.1 illustrates the AFIT Model. This study made a complete comparison of Air Force lieutenant colonels to all the components of the AFIT Model and to the colonels in Zavada's study. Each respondent received a total score, which represented his degree of "fit" to the AFIT Model, and scores for each component of the model. These scores were based on weightings developed by Zavada from a special weighting survey.

Limitations. An opinion was expressed to this researcher that missile maintenance could also be considered a logistics career field. Data was collected on lieutenant colonels and colonels in the missile maintenance career field (31XX) for the purpose of possible future analysis. However, due to the comparisons of the data from this research to the data from Zavada's research, which did not include the missile maintenance officers, the data collected on the missile maintenance officers was not analyzed. Another limitation is that, for reasons of economy, the surveys were sent only to those logisticians who possess one of the pre-identified logistician duty AFSCs. It should be

DIMENSION I: EXPERIENCE

Logistics Experience

Advanced Positions

DIMENSION II: EDUCATION/TRAINING

Advanced Academic Education

Professional Continuing
Education (PCE)

Professional Military
Education (PME)

DIMENSION III: PROFESSIONAL ATTRIBUTES

Professional Involvement

Technical Competency

Personal Qualities and Characteristics

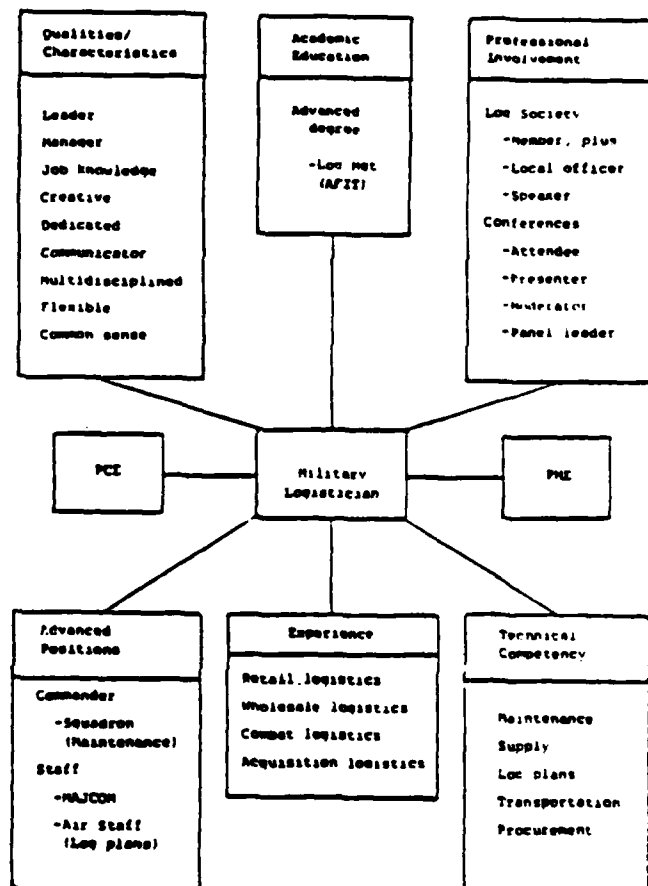


Figure 1.1. AFIT Model (13:17)

noted that Zavada sent her surveys to colonels who possessed any of the pre-identified duty, primary, or secondary AFSCs, however, comparisons in this research were done based only on duty AFSCs for both the colonels and lieutenant colonels. This may have limited the extent of the comparisons, but it insured that the comparisons would be compatible.

The respondents were divided into two groups called career logisticians and non career logisticians. Those who had an aeronautical rating of pilot or navigator were classified as non career logisticians and those who were "not rated" were classified as career logisticians. This division was done to see if any differences might exist between logisticians who were "brought up" in the logistics environment and logisticians who entered the logistics fields temporarily or at a later point in their careers. It should be recognized that this method of division may have some drawbacks and should be viewed accordingly.

Another limitation was that the same survey used by Zavada was used to survey the lieutenant colonels so that a legitimate comparison of the two groups could be performed. It was, therefore, not possible to make any improvements to the survey content or questions suggested by her or her respondents. For example, some of the respondents felt unsure of the definitions of retail, wholesale, combat experience, and staff experience. These definitions could

not be provided without the risk of biasing the related questions. Also, there was no way to distinguish between being an officer or a presenter at a professional logistics function. Respondents therefore received credit towards their overall AFIT Model score for both officer and presenter if they had been either. It should be noted that this could result in a maximum error of only two points out of a possible score of one hundred.

A dichotomous method of scoring was used for two reasons. First, it eliminated the necessity for additional weightings which would have been subjective on the part of the researcher. Secondly, it made the scoring of the respondents simple and consistent.

Finally, it should be noted that senior logisticians were defined by Zavada as colonels in one of the logistics career fields (13:36). Some of the lieutenant colonels surveyed may never become colonels. However, for the purposes of this research, it was felt that a consensus of the entire population of lieutenant colonels would be representative of the next generation of senior logisticians.

Background

Generalist vs Specialist. Much of the background for this research was based on the concept of "generalist versus specialist". Also, there was concern that the lack of a

formal logistician's career plan may have resulted in a general tendency for "stovepiping" (13:1-2).

Captain Zavada defined a generalist as "someone with a broad base of experience and knowledge across the logistics spectrum." The generalist may have been awarded more than one logistics AFSC during a career, or may have gained experience through career broadening and not received an additional AFSC (13:9-10).

Zavada defined a specialist as "someone with extensive technical knowledge and experience in one specific logistics discipline". The specialist has spent an entire career in one career field and usually has not career broadened (13:9).

The arguments against specialization have been the strongest and most publicized. One problem with specialization is that it can lead to parochialism and may foster sub-optimization, or, optimizing one area at the expense of the overall system (13:10). Thomas E. Cronin stated, in the book Military Leadership: In Pursuit of Excellence, "[good leaders] have been the generalists" (13:10). Furthermore, Zavada reported that Gordon Masterson, author of a report entitled "Air Force Logistics Officer Career Motivation and Development", noted that a leader capable of dealing with rising costs, advanced technology, and diminishing funds "must be a generalist" (13:12). Captain Mayo, in his thesis on career progression,

wrote that the primary responsibility of the military logistician is "integrating the actions and expertise of specialists". He stated that this responsibility can most effectively be met by "someone who is familiar with, or better yet, has played the individual roles of the specialists". In this way, he would be familiar with the roles of the individual specialists and could integrate them into an effective system (9:12).

The increasing complexity of technology has provided a strong argument for the need for specialists. Zavada commented that, "specialization has provided the military with highly competent personnel in different individual career fields" (13:13). It could be concluded that the military needs both specialists and generalists for senior logisticians, but in what proportions?

The DOD's current long-range logistics plan has stated as one of its goals is to "possess adequate numbers of highly qualified logistics personnel to provide responsive, effective logistics support in peace and war" (5:6). Although a firm proportion of generalists to specialists has not been agreed upon, there have been some recent proposals. Zavada reported one such proposal was made by Colonel William McKinsey in his 1985 talking paper entitled "Logistics Career Development Program." Colonel McKensey believed that 20 percent of Air Force logistics officers should be qualified as generalists by the time they attain

the rank of colonel (13:13). In any case, it seems obvious that an effective balance of generalists and specialists should be determined and pursued. In the mean time, it would seem worthwhile to determine generalist-to-specialist proportions of the present generation and the next generation of senior logisticians. For this, a measurement tool was needed.

The AFIT Model. Captain Overbey, in his AFIT thesis on the qualities, characteristics, and background requirements for a senior military logistician, developed a descriptive normative model for the senior Air Force military logistician. Overbey solicited the opinions of expert logisticians to construct a model of the professional senior military logistician (10:58). The result was a model which contained the "essential qualities, characteristics, and background requirements of a senior military logistician" (10:122). Figure 1.2 shows the components of Overbey's model. Overbey was very selective in choosing the experts he interviewed/surveyed. The logistics experts he selected were military colonels or above, civilian equivalents to colonels or above, writers on the subject of logistics, and senior graduate faculty members of the School of Systems and Logistics, Air Force Institute of Technology (AFIT) (10:60). The model created by Overbey was developed from data collected from "logistics experts" who may have been more representative of the "generalist" portion of the total

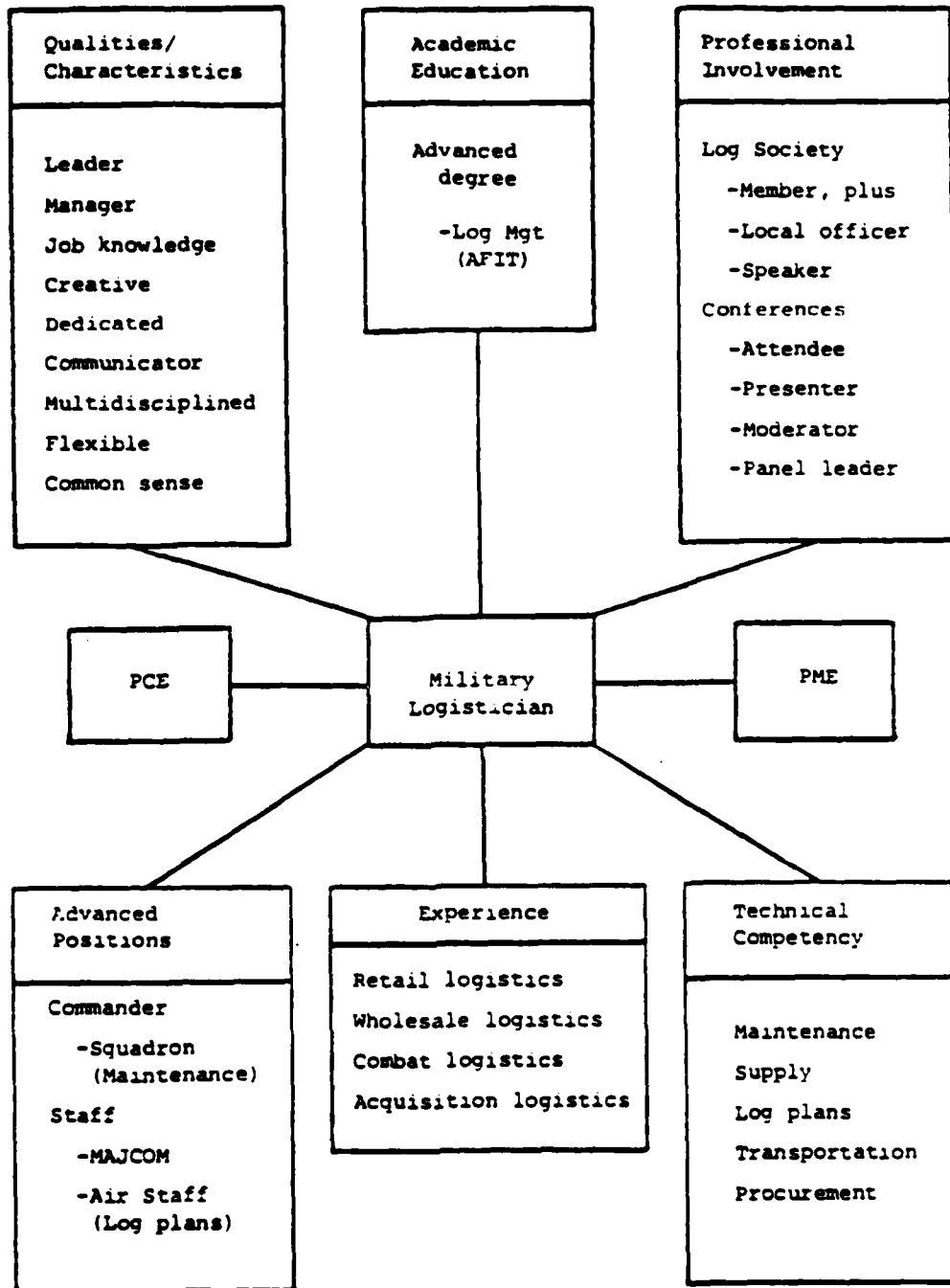


Figure 1.3. Overbey's Model (10:131)

population of logisticians. For this reason, his model may be biased toward the "generalist" point of view. However, since his information came from some of the most prominent minds in the field of logistics, his model is considered basically empirically valid for the purposes of this research.

Captain Zavada took Overbey's descriptive model and arranged its eight components into three dimensions: (1) experience (2) education and training and (3) professional attributes. The dimensions were then divided into categories and the categories were further divided into elements (13:15). For this research Overbey's model, as modified by Zavada, was called the AFIT Model. Figure 1.1 illustrates the AFIT Model. Figure 1.3 shows the components of the AFIT Model arranged by dimensions, categories, and elements.

After Zavada had arranged the AFIT Model into its respective components, she assigned various weights to each dimension, category, and element so that a logistician could be "scored" for fit to the AFIT Model. Zavada sent a weighting survey to 50 individuals considered to have a great deal of expertise in the field of logistics. The 42 respondents to the survey consisted of active duty and retired generals, a navy rear admiral, senior executive service civilians, civilian logisticians in the academic and commercial environment, and an active duty lieutenant

DIMENSIONS	CATEGORIES	ELEMENTS
EXPERIENCE	Assignments in Logistics	Retail Wholesale Combat Acquisition
	Advanced Positions	Commander Staff Officer
EDUCATION AND TRAINING	Advanced Degree	
	Professional Continuing Education (PCE)	
	Professional Military Education (PME)	
PROFESSIONAL ATTRIBUTES		Logistics Society: Member Officer/Speaker Conference Attendee Conference Presentee
	Technical Competence	Maintenance Supply Logistics Plans Transportation Procurement
	Personal Qualities and Characteristics	Leadership Management Ability Job Knowledge Creativity Dedication Communication Multidisciplined Flexibility Common Sense

Figure 1.3. AFIT Model Components (13:31)

colonel who was an editor of a periodical on Air Force logistics (13:29-30).

Each of Zavada's respondents was asked to allocate 100 points among the three dimensions based on their assessment of its relative importance to a senior military logistician. Next, the categories were grouped under the appropriate dimension. Participants were asked to allocate 100 points among the respective categories for each dimension. Finally, the participants allocated 100 points among the elements of each category based on the elements relative contribution to its respective category.

Mean scores were determined for each dimension, category, and element. The mean scores for each dimension and category were converted into percentages. The mean score of each category was multiplied by the percent score of its corresponding dimension and the mean score of each element was multiplied by the percent score of its corresponding category. These percentages were converted to a 100 percent scale weighting by multiplying each percentage by 100. The result was a complete weighting of each dimension, category, and element of the model with a total possible score of 100 (13:30-32). Illustrations of the AFIT Model weightings are shown in Tables 1.1 and 1.2.

This research used these weightings to score Air Force lieutenant colonels on their relative "fit" to the AFIT

TABLE 1.1

Model, Dimension, and Category Weightings

MODEL	DIMENSIONS	CATEGORIES	WEIGHTINGS
	EXPERIENCE	Assignments within logistics areas	22.8%
		Advanced position as commander and staff officer	17.0%
		TOTAL	39.8%
	39.8%		
MODEL	EDUCATION AND TRAINING	Advanced degree	9.5%
		PCE	7.3%
		PME	7.4%
		TOTAL	24.2%
100%	24.2		
	PROFESSIONAL ATTRIBUTES	Professional involvement	6.2%
		Technical competence	15.4%
		Personal qualities and characteristics	14.4%
		TOTAL	36.0%
	36.0%		

TABLE 1.2
Model Element Weightings

CATEGORY	ELEMENT	WEIGHTING
ASSIGNMENTS IN LOGISTICS 22.8%	Retail	5.3%
	Wholesale	5.8%
	Combat	5.5%
	Acquisition	<u>6.2%</u>
	TOTAL	22.8%
ADVANCED POSITIONS 17.0%	Commander	9.0%
	Staff Officer	<u>8.0%</u>
	TOTAL	17.0%
EDUCATION AND TRAINING 24.2%	Advanced Degree	9.5%
	PCE	7.3%
	PME	<u>7.4%</u>
	TOTAL	24.2%
PROFESSIONAL INVOLVEMENT 6.2%	Society Member	1.7%
	Society Officer	1.6%
	Conference Attendee	1.0%
	Conference Presentee	<u>1.9%</u>
	TOTAL	6.2%
TECHNICAL COMPETENCY 15.4%	Maintenance	3.9%
	Supply	3.2%
	Logistics Plans	3.3%
	Transportation	2.1%
	Procurement	<u>2.9%</u>
	TOTAL	15.4%
QUALITIES/CHARACTERISTICS 14.4%	Leadership	2.6%
	Managerial Ability	1.7%
	Job Knowledge	1.9%
	Creativity	1.2%
	Dedication	1.2%
	Communicative Skills	1.4%
	Multidisciplined	1.5%
	Flexibility	1.1%
	Common Sense	<u>1.8%</u>
	TOTAL	14.4%

Model. This "fit" represents the degree to which the individual is qualified ideally as a "generalized" logistician.

Summary

The experience and qualification levels of the next generation of senior Air Force logisticians was not known. There has been a renewed interest in the generalist versus specialist issue. There have been several attempts to develop a formal career development plan to develop experienced and qualified logistics managers, however, none has ever been adopted. No research has been done to determine the experience and qualification level of the next generation of senior Air Force military logistics officers. The level of generalists versus specialists for the next generation of senior Air Force military logisticians has never been assessed. Captain Overbey had previously established the basic model for the ideal generalized military logistician. Zavada arranged the components of Overbey's model into dimensions, categories, and elements, and assigned weightings to each of the elements in the model. These weightings were used to score Air Force colonel senior logisticians and determine on their degree of "fit" to the AFIT Model. Zavada's methodology formed the basis used in this research to determine the experience, education and training, and professional attributes levels

of lieutenant colonel logisticians. the next generation of
senior Air Force military logisticians.

II. Research Design and Methodology

The purpose of this research was to accomplish two primary objectives. The first objective was to determine the qualifications and experience of Air Force lieutenant colonels currently serving in logistics career fields. The second objective was to compare the results of the first objective to Zavada's analysis of the colonels in logistics career fields and identify the differences. This comparison was intended not only to show the differences between the colonels and lieutenant colonels, but also to determine to what degree the current career guidance was developing total system logisticians.

This chapter discusses how the research was conducted to accomplish the two primary objectives.

Research Design

Three phases of design were employed to accomplish the research objectives. Phase one was the review of the applicable literature. Phase two reviewed the procedures used to collect the data to be analyzed using Zavada's survey and the AFIT Model. Phase three analyzed the data and compared the qualifications and experience of Air Force lieutenant colonels currently in logistics career fields to the qualifications and experience of the senior colonel logisticians surveyed by Zavada. The remainder of this chapter describes each of the three phases in more detail.

Phase One: Literature Review

The literature review phase began by reviewing applicable literature concerning logistics career development and general publications about logistics personnel. Logistics journal articles, reports, and educational studies provided opinions and information addressing whether a senior logistician should be a generalist or a specialist. The discussion about generalist and specialist logisticians was relevant to this research because "it has been the underlying issue that has given rise to many of the past formal logistician career development proposals, as well as current career development guidance" (13:28). These proposals and guidelines were the only tools senior logisticians could have used, other than personal reasoning, to create a career development plan.

A review of Overbey's research on the professional senior logistician was necessary as it discussed qualities and characteristics that were used in this research. Furthermore, Overbey's model depicting these qualities and characteristics provided the basic outline for the AFIT Model. The AFIT Model, as modified by Zavada, was used as a measurement tool for assessing the qualifications of the Air Force senior military logisticians.

A thorough review of Zavada's research on the senior military logistician was required, as this research is an extension of both her work and Overbey's work. Zavada's

study was used to familiarize this researcher with the methods used to evaluate a logistician from a "total system" aspect. It was also necessary to understand the concepts involved with the development of her primary survey and the weightings involved with the scoring of the respondents. Also, the data collected by Zavada on senior colonel logisticians was used in this research for comparison purposes. The results of the literature review are contained in Chapter I of this thesis.

Phase two: Data Collection

Approximately 1460 questionnaire surveys were sent to all Air Force lieutenant colonels currently serving in logistics related functions who possessed one of the following logistics duty AFSCs:

- 0046 Director of Logistics
- 0096 Deputy Commander for Resource Management (DCRM)
- 40XX Aircraft and Munitions Maintenance (maintenance)
- 60XX Transportation
- 64XX Supply Management
- 65XX Acquisition Contracting/Manufacturing
- 66XX Logistics Plans and Programs

A search of the current ATLAS listing was done to obtain the names and addresses of all lieutenant colonels with the above duty AFSCs. The entire population was surveyed using the same questionnaire Captain Adelle Zavada used in 1986 to sample colonels who possessed any of the above duty, primary, or secondary AFSCs. Both questionnaire surveys were approved by AFMPC/DPMYOS. Appendix A displays the questionnaire survey used in this research.

The questions on the survey were designed to collect information on the dimensions, categories, and elements contained in the AFIT Model. Questions were also designed to to be used in determining how well each respondent "fit" the model. This "fit" is represented by a score between 0 and 100, and reflects the degree to which the respondent possesses the components in the AFIT Model.

Phase Three: Data Analysis

This phase is divided into two sections, the first section explains the scoring guidelines and the second addresses each of the investigative questions. The SPSSx software package was used for all statistical analyses of the data. The same data analysis and scoring methods used by Zavada were used in this research. This was necessary so that a reasonable comparison could be done between the colonels in Zavada's research and the lieutenant colonels surveyed in this research.

Scoring Guidelines. The same weightings developed by Zavada for each model component were used to compute a model score for each survey respondent. Tables 1.1 and 1.2 show the weightings assigned to each of the model's components. The range of possible model scores was from 0 to 100. This score resulted from the use of a dichotomous scoring method, meaning that a respondent either did, or did not, meet a specific component scoring criteria.

A dichotomous method was used to compute a element, category, dimension, and model scores for each respondent. Except where noted, all scoring was done to be consistent with Zavada's rules of scoring. In the following discussion of the scoring method, all references are to the individual survey questions. These questions may be referenced in Appendix A. The weightings used to score the respondents are found in Tables 1.1 and 1.2.

Under the experience dimension, respondents were given credit if they had had experience in the specific areas identified in questions 6 through 12. Respondents who showed experience in question 10 (international logistics within AFLC) were credited with wholesale logistics experience. Credit was given for any amount of time spent in each of the above areas. For example, a respondent would receive 8 points from question 11 if he claimed staff experience only at HQ USAF. He would receive the same 3 points for question 11 if he claimed experience at HQ USAF, at a MAJCOM, and at Base level. No credit was given for command and staff experience in a non logistics area for questions 11 and 12. This was done because experience in advanced positions in logistics areas was felt to be much more valuable to a logistician than experience in non logistics areas (13:34).

With respect to the education and training dimension, credit was given for any advanced degree listed in question

35. PME credit was given if the respondent had completed at least two PME courses from questions 36 to 39. Credit was given for PCE in question 40 if a respondent had attended at least one course related to logistics. As an example, if a respondent received credit in all three of these categories, he would score 24.2 points in the education and training dimension; 9.5 points for advanced degree, 7.4 points for PME, and 7.3 points for PCE.

The following rules applied to the questions related to the professional attributes dimension:

1. Questions 42 through 51 refer to the category of technical competence. A rating of 5 on the Likert scale of 9 points was considered "fairly competent," therefore, the respondents received credit for responses of 5 and above for each of these questions. For instance, if a respondent gave himself a 6 for question 44, he would receive the full 3.2 points for competency in supply. If, however, he rated himself at only a 4 for question 44, he would receive no points for competency in supply.

2. Questions 52 through 54 relate to the category of professional involvement. Credit was given to respondents for membership in any professional logistics organization. Participants were given credit for both logistics society officer/speaker and conference presentee if they answered "yes" to question 53. Those who indicated at least occasional attendance at logistics conferences or meetings

were credited as an attendee. Say, for example, a respondent answered "yes" to question 53 and claimed membership in a professional organization in question 52. He would receive 1.9 points for being a conference presentee and 1.6 points for being a society officer for answering "yes" to question 53. He would also receive 1.7 points for claiming organizational membership. Adding these points would give this respondent 5.2 points in the professional involvement category. If this respondent had given a 1, 2, or 3 response to question 54, he/she would have received an additional 1.0 point for conference/meeting attendance and scored a perfect 6.2 points for this category.

3. Question A required the participants to allocate 100 points among a list of ten personal qualities based on the relative degree to which they felt they possessed them. Each individual received credit for the traits were they allocated 10 or more points. A respondent was given the points equal to the weight associated with an element for each element for which he allocated at least ten points. As an example, a respondent allocated 50 points to leadership, 30 points to dedication, and 20 points to common sense. He would then receive 2.6 points for leadership, 1.2 points for dedication, and 1.8 points for common sense. The resulting qualities/characteristic score would be 5.6 points, the sum of these weightings.

Each respondent's category scores were summed to determine the respondents dimensional scores. These dimensional scores were then added to produce the individual's overall model score. A model score of 100 would reflect a perfect fit to the model, while a score of 0 would mean the respondent failed to meet any of the criteria of the AFIT Model.

Approximately 5 percent of the surveys were randomly selected prior to mailing for verification of the respondent's experience. Of these 76 surveys, 44 were returned and checked for reporting accuracy against the respondents corresponding ATLAS listing. This varification confirmed that the respondents were reporting their past experience accurately in the survey, as there were very few contradictions.

Investigative Question 1: The Experience, Education, and Professional Attributes of Current Air Force Lieutenant Colonel Logisticians. A total model score, scores for each of the three dimensions, and scores for each of the eight categories were calculated for each respondent. Frequencies were used to summarize each element of the model. These scores and frequencies provide an overall description of the population of lieutenant colonels qualifications and experience. The same scores and frequencies were also calculated for two population subgroups; career logisticians and non career logisticians.

Investigative Question 2: How Do the Lieutenant Colonels Fit the AFIT Model? The mean model scores were analyzed for career logisticians, non career logisticians, and each of the AFSCs. The career logisticians were compared to the non career logisticians by an analysis of variance (ANOVA). Also, the AFSCs were compared using an ANOVA and the mean model scores and the mean dimensional scores to determine if significant differences existed between any single duty AFSC group and any other duty AFSC group. A Scheffe test was used to analyze the differences found between various combinations of the groups to see if any group/groups differed significantly from the others.

Investigative Question 3: Generalist vs Specialist. A frequency was calculated on the number of officers who agreed or disagreed with question 57. This question asked whether or not they considered themselves a generalist or a specialist and used a Likert scale from one to five. Each respondent was categorized as a specialist or generalist based on their agreement or disagreement with question 57. They were categorized as specialists if they entered a 1 or 2 and were categorized as generalists if they entered a 4 or 5. Officers were also classified as generalists or specialists based on their AFIT Model scores. Respondents who scored above the population mean were classified as generalists and respondents who scored below the population mean were classified as specialists. A contingency table

was then set up and a Chi square statistic was computed to test the null hypotheses. The null hypotheses was that no relationship existed between the respondents' view of themselves as a generalist or specialist and their model scores. Respondents who entered a 3 for question 57 were considered neither specialists nor generalists and were not included in this comparison.

Investigative Question 4: Lieutenant Colonels Compared to Colonels. The total scores, dimension scores, and category scores were compared between the lieutenant colonels and the colonels from Zavada's study. These two groups were compared based on the respective scores obtained for each population using an ANOVA. The differences were analyzed using Scheffe tests.

Summary

This chapter provided an outline of the research design used to assess the qualifications and experience of lieutenant colonels currently serving in logistics related career fields. The three phases of the research design were outlined. The method for scoring participants using the AFIT Model was explained based on the weightings developed by Zavada. Finally, the methods used to analyze the data and answer the investigative questions were addressed. The next chapter will describe the findings of this research study.

III. Findings and Analysis

This research was conducted in an effort to measure the qualifications and background of Air Force lieutenant colonels currently serving in a logistics career field. The AFIT Model, created by Overbey and modified by Zavada, was used as a measuring device to evaluate the individual officers surveyed. A secondary objective was to compare the results of the lieutenant colonel survey from this research to the results of a colonel survey done by Captain Zavada one year earlier. The research plan included creating and analyzing a data base for both the lieutenant colonels and the colonels from their respective survey responses. The data base for the lieutenant colonels was created from the 1460 surveys sent to lieutenant colonels possessing a duty AFSC in one of the logistics career fields. The data base for the colonels was created from the survey responses collected one year earlier by Zavada. The remainder of this chapter outlines the results of the analysis of the lieutenant colonel data base and the comparison of the lieutenant colonel survey results to Zavada's colonel survey results. Tables and figures are used to periodically clarify or consolidate information.

Lieutenant Colonel Survey Results

A total of 1460 surveys were sent out to the population of lieutenant colonel logisticians. Of these, 939 were

returned for a response rate of approximately 64 percent. Each AFSC group seemed to adequately represented. The smallest AFSC group (009X) contained 51 respondents and the largest AFSC group (40XX) contained 384 respondents.

Demographics. It was observed that the career logistician respondents outnumbered the non career logistician respondents by approximately three to one. Career logisticians made up about 76 percent of the population while non career logisticians made up about 24 percent.

About 90 percent of the respondents received their commissions from either ROTC (49.6 percent) or OTS/OCS (45.6 percent). Also, it was interesting to note that about 1.3 percent had not completed SOS.

Answering the Investigative Questions. Four investigative questions were posed to meet the objectives of this study. The following information provides the analysis and findings for each of these questions.

Investigative Question 1. What are the experience, education/training, and professional attributes of Air Force lieutenant colonels currently serving in logistics career fields?

The AFIT Model, with the weightings determined by Zavada, was used to compute three dimension scores for each respondent. These three dimension scores represent the degree to which each respondent possesses the experience,

education/training, and professional attributes presented in the AFIT Model. The dimension scores for the population, career logisticians, and non career logisticians are presented in Table 3.1. The respondents' total model scores will be addressed in investigative question 2. The highest possible dimensional scores were 39.8 for experience, 24.2 for education and training, and 36.0 for professional attributes. As can be seen in Figure 3.1, the career logisticians scored higher in each dimension than did the non career logisticians.

The population scores for experience ranged from 0 to 39.8. There were 122 lieutenant colonels (13 percent) who had a perfect score of 39.8 for experience. Of these, 116 (95 percent) were career logisticians and 6 were non career logisticians. The most prevalent experience score achieved by the respondents was 27.8. This mode response represents a combination of retail, combat logistics, staff, and command experience and was achieved by 143 (15.2 percent) respondents.

The education and training scores ranged from 0 to 24.2. The maximum score of 24.2 was achieved by 369 officers (39 percent), 322 career (87 percent) and 47 non career logisticians. The minimum score of 0 was received by 7 officers (less than 1 percent), 5 career and 2 non career logisticians. The mode score of 16.9 was recorded for 432 officers (46 percent), of which 294 (68 percent) were career

TABLE 3.1

Lieutenant Colonel Model Dimension Scores

	Pop	CL	NCL
size	939	709	230
Experience			
	max possible = 39.8		
mean	27.3	29.2	21.2
std dev	8.5	7.5	8.5
median	27.8	30.8	22.3
mode	27.8	39.8	27.8
Education and Training			
	max possible = 24.2		
mean	18.7	19.3	16.9
std dev	5.3	5.2	5.0
median	16.9	16.9	16.9
mode	16.9	24.2	16.9
Professional Attributes			
	max possible = 36.0		
mean	19.0	19.7	16.9
std dev	5.5	5.4	5.3
median	16.7	19.5	16.0
mode	16.8	16.8	16.8
Pop = population			
CL = career logistician			
NCL = non career logistician			

logisticians and 138 were non career logisticians. The mode score represented completion of an advanced degree and at least two PME courses. A general lack of PCE was indicated among the respondents.

The professional attributes dimension showed a much larger variety of scores than did the other two dimensions.

TABLE 3.2

Lieutenant Colonel Model Dimension Scores By AFSC

	40XX	60XX	64XX	65XX	66XX	004X	009X
size	384	102	91	102	111	98	51
Experience							
	max possible = 39.8						
mean	28.5	26.8	29.7	23.1	27.1	28.2	21.2
std dev	8.4	7.0	7.1	8.2	7.5	8.0	12.3
median	28.1	27.8	30.8	25.3	27.8	28.0	22.3
Education and Training							
	max possible = 24.2						
mean	17.8	18.8	18.8	21.5	19.7	18.7	17.9
std dev	5.5	4.6	4.9	3.9	5.0	5.8	4.9
median	16.9	16.9	16.9	24.2	16.9	16.9	16.9
Professional Attributes							
	max possible = 36.0						
mean	19.8	17.8	18.1	17.8	19.8	19.7	16.6
std dev	5.4	5.1	5.0	5.0	5.5	5.9	5.9
median	19.7	17.5	17.5	16.8	19.5	20.1	16.5

This is because the professional attributes dimension contained more elements, each with a different weighting, and with each element comes the potential for a different score. The range for professional attributes was from 1.8 to a perfect 36.0. One individual scored the low of 1.8 and

four scored the high of 36.0, three of which were career logisticians.

Table 3.2 shows the dimension scores broken down by duty AFSC. The supply officers had the highest mean score of 29.7 in the experience dimension and the deputy commanders for resource management (DCRMs) had the lowest, 21.2. The highest mean score for education and training was achieved by the acquisition contracting/manufacturing (acquisition) officers with a mean score of 21.5 and the low mean scores of 17.8 and 17.9 were recorded by the maintenance officers and the DCRMs respectively. The maintenance officers and logistics plans officers shared the high mean score of 19.8 in the professional attributes dimension, while the directors of logistics officers were close behind with a score of 19.7. The DCRMs had the low mean score of 16.6. It was noted that no group had the high mean score for more than one dimension, however, the DCRMs had the low mean score in two of the three dimensions.

Each of the dimension scores were composed of the sum of two or more category scores. A look at the category scores will, therefore, provide more insight as to what created each dimension score. The categories and elements for the education and training dimension were the same, therefore, these scores are discussed later in this chapter with the other elements. The lieutenant colonel category scores for the population, career logisticians, and non

TABLE 3.3
Lieutenant Colonel Model Categories Scores

	Pop	CL	NCL
size	939	709	230
Logistics Assignments			
	max possible = 22.8		
mean	13.9	15.6	8.7
std dev	6.6	5.8	5.9
median	16.6	16.6	10.8
Advanced Positions			
	max possible = 17.0		
mean	13.3	13.6	12.5
std dev	4.8	4.6	5.3
median	17.0	17.0	17.0
Professional Involvement			
	max possible = 6.2		
mean	1.8	2.0	.91
std dev	2.2	2.2	1.6
median	1.0	1.7	0.0
Technical Competence			
	max possible = 15.4		
mean	6.9	7.2	6.1
std dev	4.0	3.9	4.2
median	6.5	6.8	3.9
Qualities and Characteristics			
	max possible = 14.4		
mean	10.3	10.5	9.9
std dev	2.5	2.5	2.4
median	10.5	10.6	10.0

career logisticians, are presented in Table 3.3. Category scores ranged from 0 to the maximum possible scores for all the categories. The logistics assignments category had 208

individuals (22.2 percent) with a perfect score of 22.8. Of these, 200 were career logisticians, and only 8 were non career logisticians. Sixty-one percent of the population had a perfect score of 17.0 in the advanced positions category. The professional involvement category had 10.9 percent of the officers achieving the maximum score of 6.2, while 6.6 percent scored the maximum of 15.4 in technical competence and 13 percent achieved the maximum of 14.4 in the qualities and characteristics category. Career logisticians had higher mean scores than non career logisticians in all categories.

The category scores were broken down further by duty AFSCs, these statistics are shown in Table 3.4. The highest mean score in logistics assignments, 17.0, was achieved by the logistics plans officers. The maintenance officers and transportation officers received the high mean scores in advanced positions of 15.4 and 15.3 respectively. The professional involvement category had high mean scores of 2.7 and 2.6, scored by the acquisition and transportation officers respectively. The directors of logistics scored the highest mean of 8.1 in technical competence. For the qualities and characteristics category, the supply officers achieved the highest mean score. It was interesting to note that here, the transportation officers were the only single AFSC group to achieve the highest mean score in more than one category, advanced positions and professional

TABLE 3.4
Lieutenant Colonel Model Categories Scores By AFSC

	40XX	60XX	64XX	65XX	66XX	0046	0096
size	384	102	91	102	111	98	51
Logistics Assignments							
	max possible = 22.8						
mean	13.1	11.4	15.7	14.6	17.0	16.1	9.9
std dev	6.6	5.6	5.5	6.0	6.0	6.2	7.7
median	11.5	10.8	16.6	17.0	17.3	17.0	10.8
Advanced Positions							
	max possible = 17.0						
mean	15.4	15.3	14.0	8.5	10.0	12.1	11.3
std dev	3.7	3.5	4.2	3.7	3.8	4.9	6.3
median	17.0	17.0	17.0	8.0	8.0	8.0	9.0
Professional Involvement							
	max possible = 6.2						
mean	1.5	2.6	1.3	2.7	2.1	1.5	.7
std dev	2.0	2.5	1.9	2.3	2.2	2.1	1.2
median	1.0	1.7	0.0	2.7	1.0	0.0	0.0
Technical Competence							
	max possible = 15.4						
mean	7.9	5.3	6.0	4.6	7.2	8.1	5.8
std dev	3.9	3.2	3.8	3.0	3.9	4.1	4.8
median	7.2	5.4	6.1	2.9	6.5	7.2	5.3
Qualities and Characteristics							
	max possible = 14.4						
mean	10.3	9.9	10.8	10.5	10.5	10.1	10.2
std dev	2.5	2.4	2.5	2.1	2.9	2.9	2.5
median	10.4	10.2	10.9	10.5	11.0	10.3	10.1

involvement. However, two groups had low mean scores in two categories each. The DCMRs had low mean scores in logistics assignments and professional involvement, while the

acquisition officers had the low mean scores in advanced positions and technical competence. The transportation officers had the low mean score for the qualities and characteristics category.

Score frequencies instead of actual scores were used to describe the model elements because, with the dichotomous scoring method, only two scores were possible for each element. If the respondent did not meet the criteria for an element, he/she received a score of 0 for that element. On the other hand, if they met an element criteria, they received a score equal to the weighting of that element. Percentages of the appropriate group were used with the frequencies for the population, career logisticians, and non career logisticians to make the information more meaningful. The percentages and frequencies for each element are displayed in Table 3.5. Since the respondents could report experience in more than one area or level, the sum of the percentages of respondents having experience in various levels or areas may be more, or less, than 100 percent.

About 81 percent of the population had retail logistics experience, mostly in base maintenance. This was not surprising considering the large number of maintenance officers in the population, about 41 percent. Similarly unsurprising, almost 50 percent of the population had retail experience in base maintenance. Of the remaining retail

TABLE 3.5

Lieutenant Colonel Model Element Frequencies/Percentages

	Pop	CL	NCL
size	939	709	230
Assignments in Logistics			
Retail	764/81.4	625/88.2	139/60.4
Wholesale	421/44.8	381/53.7	40/17.4
Combat	670/71.4	570/80.4	100/43.5
Acquisition	469/50.0	393/55.4	76/33.0
Advanced Positions			
Commander	604/64.3	452/63.7	152/66.1
Staff Officer	883/94.0	694/97.9	189/82.2
Education/Training			
Advanced Degree	813/86.6	623/87.9	190/82.6
PCE	422/45.0	363/51.2	59/25.7
PME	915/97.4	692/97.6	223/97.0
Professional Involvement			
Logistics Society Member	325/34.6	286/40.3	39/17.0
Logistics Society Off/Spkr	230/24.5	204/28.8	26/11.3
Logistics Conf. Attendee	304/32.4	251/35.4	53/23.0
Technical Competence			
Maintenance	525/55.9	390/55.0	135/58.7
Supply	408/43.5	338/47.7	70/30.4
Logistics Plan	533/56.8	428/60.4	105/45.7
Transportation	314/33.4	243/34.3	71/30.9
Procurement	247/26.3	193/27.2	54/23.5
Qualities/Characteristics			
Leadership	877/93.4	653/92.1	224/97.4
Managerial Ability	831/88.5	624/88.0	209/90.9
Job Knowledge	790/84.1	626/88.3	164/71.3
Creativity	397/42.3	308/43.4	89/38.7
Dedication	656/69.9	498/70.2	158/68.7
Communicative Skills	656/69.9	496/70.0	160/69.6
Multidisciplinary	238/25.3	208/29.3	30/13.0
Flexible	568/60.5	446/62.9	122/53.0
Common Sense	744/79.2	558/78.7	186/80.9

elements, base supply accounted for 22 percent, base logistics plans for 19 percent, base transportation for 16 percent, base procurement for 9 percent, and other 5 percent.

Wholesale experience was claimed by 45 percent of the population, however, only about 17 percent of the non career logisticians reported wholesale experience. The majority of this experience came from Air Logistics Center (ALC) level, about 27 percent. The remaining elements were, Air Force Logistics Command Career Broadening (AFLCCB) 5 percent, Education With Industry (EWI) 9 percent, and other 15 percent. It was noted that 96 percent of those claiming AFLCCB experience were career logisticians.

Combat logistics experience was credited to about 71 percent of the population, with career logisticians claiming about twice the percentage of combat experience as non career logisticians. About 41 percent of the population claimed actual war logistics experience, while combat exercise experience and mobility planning registered 44 percent and 42 percent respectively. "Other" combat logistics experience was credited to 3 percent of the population.

About 50 percent of the officers had acquisition experience. Major command experience topped the list for acquisition, it was claimed by 18 percent of the population. However, AFLC program management, AFSC program

management, and other acquisition (mostly unspecified) were close behind with 16 percent, 13 percent, and 12 percent respectively. Education with industry programs accounted for 9 percent of the respondents claiming experience therein.

Command experience was one of the few model elements where non career logisticians had a higher percentage of experience than career logisticians. About 64 percent of the respondents were former commanders in logistics related areas. Sixty-two percent of the lieutenant colonels had been former squadron commanders, 4 percent had been DCRs, 5 percent had been DCMs, and 7 percent had been commanders of a non logistics squadron.

Almost all of the officers surveyed, 94 percent, received staff officer credit. Approximately 73 percent of the population received staff experience at the MAJCOM level and 64 percent received it at wing/base level. A significant number, about 40 percent, got staff experience at Numbered Air Force or Air Division level. Of the other options for staff experience listed, 22 percent claimed HQ USAF experience, 13 percent cited Unified Command experience, and 16 percent reported other staff experience.

Under education and training, 87 percent of the respondents possessed an advanced degree. Of the masters degrees, about 61 percent were in non logistics areas, 17 percent had degrees from AFIT, and 11 percent had logistics

degrees from institutes other than AFIT. Only 1 percent had a doctorate degree, all of these were career logisticians.

Respondents received credit for PME if they had completed two or more PME courses. Almost all of the respondents, 99 percent, had completed some PME. Only 12, or 1.3 percent, of the officers had not completed SOS, 11 of which were career logisticians. Intermediate Service School had not been completed by 2.8 percent of the lieutenant colonels, and 27 percent of the lieutenant colonels had not completed Senior Service School.

Only 45 percent of the population reported completion of PCE courses in a logistics area. Of those, 13 percent had one course, 12 percent had two, 7 percent had three, 4 percent had four, and 9 percent had five or more.

Approximately 35 percent of the lieutenant colonels were members of a professional logistics society and 12.6 percent were members of the Society of Logistics Engineers (SOLE). About 92 percent of the SOLE members were career logisticians. Thirty-six percent of the population said they had never attended any professional logistics society meetings or conferences.

Credit for technical competence was given to respondents if they rated themselves at five or more on a Likert scale from 1 to 9. Maintenance was the only area of competence where non career officers reported they were more qualified than career officers. Fifty-nine percent of the

non career officers rated themselves competent in maintenance as opposed to 55 percent of the career logisticians. However, almost 30 percent of the career logisticians who rated themselves competent reported the highest competency rating as opposed to only 14 percent of the non career logisticians. The areas in which most respondents rated themselves technically competent were logistics plans and maintenance, with 57 and 56 percent included respectively. Of the others, 43 percent rated themselves competent in supply, 33 percent in transportation, and 26 in procurement.

The respondents were asked to allocate 100 points among the elements of the qualities and characteristics category based on the degree to which they felt they possessed any or all of the traits. Officers who allocated 10 or more points to any one of these traits were credited with that trait and received the weighting associated with the trait. Table 3.6 provides further descriptive statistics on these qualities and characteristics.

As mentioned earlier, a respondent recieved credit for a quality or characteristic if they allocated 10 or more points out of 100 to a given trait. Leadership was the quality most common to the lieutenant colonel logisticians. About 93 percent of the officers allocated 10 or more points to leadership. Managerial ability was not far behind with 88 percent giving it 10 or more points. Other qualities

TABLE 3.6

Lieutenant Colonel Qualities and
Characteristics Self Ratings

	Frequency	Percentage
Population (size = 939)		
Leadership	877	93.4
Managerial Ability	831	88.5
Job Knowledge	790	84.1
Creativity	397	42.3
Dedication	656	69.9
Communicative Skills	656	69.9
Multidisciplined	238	25.3
Flexible	568	60.5
Common Sense	744	79.2
Career Logisticians (size = 709)		
Leadership	653	92.1
Managerial Ability	624	88.0
Job Knowledge	626	88.3
Creativity	308	43.4
Dedication	498	70.2
Communicative Skills	496	70.0
Multidisciplined	208	29.3
Flexible	446	62.9
Common Sense	558	78.7
Non Career Logisticians (size = 230)		
Leadership	224	97.4
Managerial Ability	207	90.0
Job Knowledge	164	71.3
Creativity	89	38.7
Dedication	158	68.7
Communicative Skills	160	69.6
Multidisciplined	30	13.0
Flexible	122	53.0
Common Sense	186	80.9

chosen frequently were job knowledge with 84 percent, common sense with 79 percent, dedication and communicative skills with 70 percent each and flexibility with 60 percent. Additionally, 42 percent were given credit for creativity, and 25 percent for being multidisciplined. Non career logisticians rated themselves higher in leadership, managerial ability, and common sense. Career logisticians rated themselves higher in all the other qualities except communicative skills where 70 percent of both groups received credit. The quality most lacking among the lieutenant colonels was being multidisciplined. Almost 75 percent of the respondents did not receive credit for being multidisciplined to a high degree.

Respondents were also given an opportunity to rate themselves on a quality or characteristic not included in the survey. Integrity was by far the most popular trait not listed and was added by 17 officers. Mission knowledge, operational experience, and a sense of humor were each added by four officers. Other qualities or characteristics mentioned were cooperation, educated, and possessing a thick skin.

Investigative Question 2. How do Air Force lieutenant colonels currently serving in logistics related functions fit the AFIT Model?

Model scores were calculated for the population of lieutenant colonels. These model scores were then broken

down into groups of career logisticians and non career logisticians. The population model scores were further broken down into groups consisting of each of the logistics duty AFSCs. Table 3.7 illustrates the descriptive statistics associated with the model scores of each of these groups.

The career logisticians recorded a higher mean model score than the non career logisticians, and all the individual population AFSC groups. Three individuals achieved a perfect model score of 100, two career logisticians and one non career logistician. Although the upper range of model scores for the population, career, and non career logisticians was a perfect 100, the career logisticians had a higher minimum score of 23.6 as compared to 20.7 for both non career and the population.

Among the duty AFSC groups, the director of logistics officers scored the highest mean of 66.6. Close behind, however, were the logistics plans officers and the supply officers with mean scores of 66.5 each and the maintenance officers with 66.1. The transportation officers received a mean score of 63.4 and the acquisition officers 62.3. The lowest mean score, 55.7, was attained by the DCRMs.

As mentioned in the prior paragraph, three perfect model scores of 100 were achieved. All three perfect scores came from individuals from different career fields; one was a maintenance officer, the second was an acquisition

TABLE 3.7
Lieutenant Colonel Model Scores

	mean	std dev	median	size	range
Population	65.0	13.64	65.6	939	20.7-100
Career Logistician	68.2	12.3	69.2	709	23.6-100
Non Career Lgstn	55.0	12.76	54.4	230	20.7-100
Duty AFSC (pop)					
40XX	66.1	13.8	67.2	384	20.7-100
60XX	63.4	12.0	63.6	102	34.6-87.4
64XX	66.5	11.7	67.3	91	34.4-92.7
65XX	62.3	12.4	62.8	102	24.2-100
66XX	66.5	13.0	67.6	111	31.8-93.8
004X	66.6	13.3	68.4	98	42.6-100
009X	55.7	18.3	57.3	51	22.5-94.2

officer, and the third was Director of Logistics. The lowest model score of 20.7 was obtained by a maintenance officer and the Director of Logistics officers had the highest minimum score of 42.6.

An analysis of variance was performed between the career and non career logisticians and among the AFSC groups to determine how much the model and dimensional scores differed between the groups. A scheffe multiple comparison test was also performed to determine which, if any, groups differed from the others.

The analysis of variance on the career and non career logisticians showed a statistically significant difference. Therefore, these two groups were broken down into their

AFSCs for further analysis. Table 3.8 illustrates which AFSC groups differed significantly from at least one of the other AFSC groups within both the career logistician and the non career logistician portions of the population. Table 3.9 shows the means used in the multiple comparisons of the AFSC groups.

The model scores and dimension scores did not differ significantly among any of the duty AFSCs within the non career logistician group. However, there were some significant differences noted among the duty AFSCs groups within the career logisticians. The model scores for all of the career fields except the transportation and supply officers differed significantly from the model score of at least one of the other career fields. All of the career fields differed significantly from at least one of the others in the experience dimension. The maintenance officers, supply officers, and acquisition officers were found to be significantly different from at least one of the other AFSCs in both the professional attributes and education/training dimensions.

The significant differences in the model scores among the AFSCs of the career logisticians could be attributed to the comparatively low mean scores achieved by the DCRMs and the acquisition officers, and the comparatively high mean score of the maintenance officers. The maintenance

TABLE 3.8

Variations of Model and Dimension
Scores for Lieutenant Colonels

Career Logistician Mean Scores				
	Model	Experience	Training/Ed	Prof Attributes
004X			NO	NO
009X			NO	NO
40XX				
60XX	NO		NO	NO
64XX	NO			
65XX				
66XX			NO	NO

Non Career Logistician Mean Scores				
	Model	Experience	Training/Ed	Prof Attributes
004X	NO	NO	NO	NO
009X	NO	NO	NO	NO
40XX	NO	NO	NO	NO
60XX	NO	NO	NO	NO
64XX	NO	NO	NO	NO
65XX	NO	NO	NO	NO
66XX	NO	NO	NO	NO

"NO" indicates no significant differences between the AFSC mean score and the mean scores of any of the other groups based on the Scheffe multiple comparison method and $\alpha=.05$.

TABLE 3.9
Career and Non Career Mean Model and
Dimension Scores By AFSC

Career Logistician Mean Scores				
	Model	Experience	Training/Ed	Prof Attributes
Max pos	100	39.8	24.2	36.0
004X	70.1	30.0	19.4	20.7
009X	59.5	23.5	18.5	17.5
40XX	70.7	31.5	18.4	17.5
60XX	66.8	28.6	19.5	18.8
64XX	67.3	30.3	18.8	18.1
65XX	63.4	23.8	21.7	17.9
66XX	69.0	28.5	20.2	20.2
Non Career Logistician Mean Scores				
	Model	Experience	Training/Ed	Prof Attributes
Max pos	100	39.8	24.2	36.0
004X	52.9	20.9	16.1	15.9
009X	48.7	16.9	16.9	14.8
40XX	56.4	22.3	16.5	17.6
60XX	53.9	21.8	16.9	15.2
64XX	57.2	21.5	17.6	18.0
65XX	57.3	19.9	20.4	17.0
66XX	52.0	18.2	16.3	17.4

officers differed significantly from both the DCRMs and the acquisition officers.

There were also significant differences in the mean experience scores among the career logistician duty AFSCs. A look at the mean experience scores showed a fairly wide spread from a low of 23.5 for the DCRMs to a high of 31.5 for the maintenance officers. Furthermore, the career logisticians seemed to score either high or low with a

relatively wide gap in the middle. The DCRMs and the acquisition officers claimed significantly less experience than the other AFSCs. For this reason, all AFSC groups showed significant differences with at least one of the other AFSC groups.

In the education and training dimension, there was also a wide spread between the high and low mean scores. However, there was more of a clustering of scores among the AFSCs. The relatively high mean score and low standard deviation of the acquisition officers produced the significant differences noted in the analysis of variance.

The maintenance officers, supply officers and acquisition officers showed significant differences with other AFSCs in the professional attributes dimension as well as the education and training dimension. The maintenance officers' high mean score in the professional attributes dimension differed significantly from the lowest scoring acquisition and supply officers.

In summary, it appears there are significant differences in the degree of fit to the AFIT Model between the career and non career logisticians. Furthermore, there appears to be a significant difference in the degree of fit to the AFIT Model among the AFSCs in the career logistician group, but not among the AFSCs in the non career logistician group.

Investigative Question 3. Do Air Force

lieutenant colonels currently in logistics career fields view themselves as generalists or specialists? How does that opinion compare to the respondents' AFIT Model scores?

Question number 57 of the survey specifically asked the respondents if they considered themselves generalists or specialists. Table 3.10 breaks down the lieutenant colonels' responses into population, career, non career, and duty AFSC. A Likert scale from 1 to 5 was used to express the respondents' degree of agreement or disagreement with question 57. If a respondent marked a 1 or 2, it was determined that he/she disagreed with being a generalist; these individuals were classified as specialists. A response of 4 or 5 meant he/she considered themselves to be a generalist logistician. A response of 3 indicated neither agreement nor disagreement; these individuals were not used in comparing specialists to generalists.

The mean, median, and mode responses indicate that the population of lieutenant colonels as a whole were more inclined to view themselves as generalists than as specialists. This was also true for both career logisticians and non career logisticians. The non career logisticians showed a strong inclination to view themselves as generalists by recording a 5 as the most popular response to question 57. When the population was broken down into

TABLE 3.10

Lieutenant Colonel Generalist vs. Specialist Perception

	mean	median	mode	smpl sz
Population	3.32	4.0	4.0	930
Career Logistician	3.26	4.0	4.0	709
Non Career Logistician	3.50	4.0	5.0	230
Duty AFSC (Population)				
40XX	3.12	3.0	2.0	384
60XX	2.96	3.0	2.0	102
64XX	2.86	2.0	2.0	91
65XX	2.79	2.0	2.0	102
66XX	4.40	5.0	5.0	111
0046	3.79	4.0	4.0	98
0096	4.18	4.0	4.0	51

The above statistics were based on the following Likert scale responses:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Disagree nor Disagree
- 4 = Agree
- 5 = Strongly Agree

AFSCs, however, it became evident that not all career fields shared this inclination.

The strongest sense of agreement to question 57 among the AFSCs came from the logistics plans officers who recorded a mode of 5. Both the director of logistics officers and the DCRMs considered themselves as generalists and showed a mode of 4. However, here is where the generalist perception seems to stop. All four of the remaining career fields had a most popular score of 2;

showing disagreement with being a generalist. Of these four, only the maintenance officers had a mean above 3.0.

Chi-square comparisons were performed to determine if a relationship existed between high/low model scorers and generalist/specialist self-perceptions. Contingency coefficients were used to determine the strength of the relationships between the respondents' view of themselves as generalists or specialists, and their degree of fit to the AFIT model. First, the respondents were divided into high or low scorers based on whether they scored above or below the population mean model score. About 52 percent of the officers scored above the mean. Second, the same officers were divided into generalists or specialists based on their degree of agreement to question 57. Officers who neither agreed nor disagreed with question 57 were not included in the computations. Table 3.11 illustrates the resulting 2 x 2 contingency tables for the population, career logisticians, and non career logisticians.

The null hypothesis for the chi-square comparison stated that there is no relationship between the respondents' views of themselves as generalists or specialists and their model scores. The alternate hypothesis stated that there is a relationship. In order to be consistent with Zavada's research, the same level of significance, .01, was set. The critical chi-square table value with one degree of freedom was found to be 6.63.

TABLE 3.11

Contingency Tables of High/Low Model
Scorers By Generalist/Specialist Distinction

	Population	
	Low Scorers	High Scorers
Specialists	181	165
Generalists	228	283

Chi-Square = 4.89		
Contingency coefficient = .075		

	Career Logisticians	
	Low Scorers	High Scorers
Specialists	120	153
Generalists	118	254

Chi-Square = 10.12		
Contingency coefficient = .124		

	Non Career Logisticians	
	Low Scorers	High Scorers
Specialists	61	12
Generalists	110	29

Chi-Square = .60		
Contingency coefficient = .053		

The critical chi-square table value, at a significance level of .01, is 6.63.

For the population, the computed chi-square value was 4.89. This value is less than the critical chi-square table value of 6.63, therefore, the null hypothesis was not rejected. There was not sufficient information to conclude that a relationship exists between hi or low model scorers and the respondents' view of themselves as generalists or specialists. It was noted that at a significance level of .05, the null hypothesis would have been rejected. The contingency coefficient was calculated as .075 and, when compared to the upper limit for a 2 x 2 contingency table of .707, appears to confirm a very weak relationship.

The career logisticians had a computed chi-square of 10.12. This value is more than the critical chi-square table value of 6.63, as a result the null hypotheses was rejected. There does appear to be a relationship between the respondents' hi or low model scores and their view of themselves as generalists or specialists. The contingency coefficient of .124, however, showed this relationship to be very weak.

For the non career logisticians, the chi-square statistic was computed as .60. This value is less than the critical chi-square table value of 6.63. The null hypothesis was, therefore, not rejected. There was not sufficient information to conclude that a relationship exists between the high or low model scorers and the respondents' view of themselves as generalists or

specialists. As expected, the contingency coefficient of .053 indicated a very weak relationship.

There were three groups compared by the chi-square method, the population, the career logisticians, and the non career logisticians. Of these, only the career logisticians appeared to show a relationship between high or low model scorers and the respondents' view of themselves as generalists or specialists. The computed contingency coefficient, however, showed this relationship to be very weak.

Investigative Question 4. How do the experience, education/training, and professional attributes of Air Force lieutenant colonels currently in logistics career fields compare to those of Air Force colonels in logistics career fields? If differences exist, what are they and what could they indicate?

A data base was created for the colonels based on the same survey responses attained by Captain Zavada in 1986. The survey is presented in Appendix A. The same opscan score sheets were used, however, all AFSCs were converted to duty AFSCs in order to be compatible with the lieutenant colonels. For this reason and the fact that some opscans were unusable due to missing responses, the actual number of respondents was reduced from 671 to 654. From this data base, model scores, dimension scores, and category scores were determined for each of the respondents using the same

computer statistical analysis program as Zavada did. This program is displayed in Appendix B. These scores were then compared to the scores of the lieutenant colonels. T-tests were performed on the populations' mean model scores and dimension scores to determine if significant differences existed. Furthermore, generalist versus specialist scores and attitudes were compared. Population similarities and differences will be specifically addressed, however, additional descriptive statistics have been added to some of the tables for information only.

The model score comparison, shown in Table 3.12, shows the colonels with a slightly higher model score than the lieutenant colonels. The mean model score for the colonels was 65.7 and the mean model score for the lieutenant colonels was 65.0. A t-test was accomplished to determine if the difference in mean model scores for the two populations was of significance. In order to stay consistent with Zavada's research, a significance level of .05 was set for the t-tests with a critical t-value of 1.645. The computed t-value for the model score comparison was 1.092. Since the computed t-value was less than the critical t-value, there was not sufficient evidence to conclude that the mean model scores of the two groups were significantly different.

TABLE 3.12
Model Scores Comparison

	Lieutenant Colonel			Colonel		
	mean	med	mode	mean	med	mode
Population	65.0	65.6	63.4	65.7	65.2	64.5
Career Logistician	68.2	69.2	56.5	70.3	69.8	64.7
Non Career Lgstr	55.0	54.4	43.3	59.9	60.4	56.0
Duty AFSC (pop)						
40XX	66.1	67.2	63.4	66.9	66.3	56.0
60XX	63.4	63.6	36.7	67.0	66.9	61.3
64XX	66.5	67.3	57.0	66.6	68.7	38.8
65XX	62.3	62.8	49.5	63.2	62.9	49.5
66XX	66.5	67.6	56.9	62.0	61.2	58.2
004X	66.6	68.4	71.1	68.3	68.5	64.7
009X	55.7	57.3	22.5	59.7	61.1	64.5

The t-test was also performed on the two populations' model dimension scores to determine if there was a significant difference in the mean scores for experience, education/training, and professional attributes. The same significance level of .05 and critical t-value of 1.645 were used in all dimensional comparisons. Table 3.13 illustrates the dimension statistics associated with the two populations.

The mean experience score of 28.1 for the colonels was slightly higher than the 27.3 of the lieutenant colonels. A t-test comparison resulted in a computed t-value of 2.06. This computed value was higher than the critical t-value of

TABLE 3.13
Model Dimension Scores Comparison

	Lieutenant Colonel			Colonel		
	Pop	CL	NCL	Pop	CL	NCL
Experience	max possible = 39.8					
mean	27.3	29.2	21.2	28.1	30.8	24.8
std dev	8.5	7.5	8.5	7.7	6.9	7.2
median	27.8	30.8	22.3	27.8	30.8	23.2
Education and Training	max possible = 24.2					
mean	18.7	19.3	16.9	18.1	19.0	16.9
std dev	5.3	5.2	5.0	5.7	5.3	6.0
median	16.9	16.9	16.9	16.9	16.9	16.9
Professional Attributes	max possible = 36.0					
mean	19.0	19.7	16.9	19.5	20.5	18.3
std dev	5.5	5.4	5.3	5.9	5.6	6.1
median	16.7	19.5	16.0	19.4	20.7	17.6

1.645, therefore, it can be stated that the difference in mean experience scores is statistically significant at the .05 level. A look at the categories scores encompassed by the experience dimension showed the colonels with higher mean scores for both elements in the advanced positions category. It was interesting to note that both groups had identical mean scores in the assignments in logistics category. Table 3.14 displays the category comparison statistics and Table 3.15 shows the element comparison statistics.

TABLE 3.14
Model Categories Scores Comparison

	Lieutenant Colonels			Colonels		
	Pop	CL	NCL	Pop	CL	NCL
Logistics Assignments						
	max possible = 22.8					
mean	13.9	15.6	8.7	13.9	16.6	10.5
std dev	6.6	5.8	5.9	6.3	5.3	5.7
median	16.6	16.6	10.8	12.0	16.6	10.8
Advanced Positions						
	max possible = 17.0					
mean	13.3	13.6	12.5	14.2	14.1	14.3
std dev	4.8	4.6	5.3	4.4	4.3	4.6
median	17.0	17.0	17.0	17.0	17.0	17.0
Professional Involvement						
	max possible = 6.2					
mean	1.8	2.0	.91	2.4	3.0	1.6
std dev	2.2	2.2	1.6	2.4	2.5	2.0
median	1.0	1.7	0.0	1.7	2.7	1.0
Technical Competence						
	max possible = 15.4					
mean	6.9	7.2	6.1	7.2	7.4	7.0
std dev	4.0	3.9	4.2	4.3	4.0	4.6
median	6.5	6.8	3.9	6.8	6.7	7.0
Qualities and Characteristics						
	max possible = 14.4					
mean	10.3	10.5	9.9	10.0	10.2	9.7
std dev	2.5	2.5	2.4	2.6	2.5	2.7
median	10.5	10.6	10.0	10.4	10.6	10.0

TABLE 3.15

Model Element Percentages Comparison

	Lieutenant Colonel				Colonel		
	Pop	CL	NCL	Pop	CL	NCL	
Assignments in Logistics							
Retail	81	88	60	90	94	84	
Wholesale	45	54	17	49	73	32	
Combat	71	80	43	64	85	39	
Acquisition	50	55	33	45	54	33	
Advanced Positions							
Commander	64	64	66	71	69	74	
Staff Officer	94	98	82	97	99	95	
Education/Training							
Advanced Degree	87	88	83	81	85	76	
PCE	45	51	23	44	51	35	
PME	97	98	97	98	98	97	
Professional Involvement							
Logistics Soc. Member	35	40	17	35	46	22	
Logistics Soc. Off/Spkr	24	29	11	37	48	24	
Logistics Conf. Attend.	32	35	23	46	51	39	
Technical Competence							
Maintenance	56	55	59	56	49	63	
Supply	43	48	30	48	54	38	
Logistics Plan	57	60	46	58	64	52	
Transportation	33	34	31	34	35	33	
Procurement	26	27	23	30	29	30	
Qualities/Characteristics							
Leadership	93	92	97	97	96	98	
Managerial Ability	88	88	90	87	86	87	
Job Knowledge	84	88	71	78	83	72	
Creativity	42	43	39	39	42	36	
Dedication	70	70	69	66	68	64	
Communicative Skills	70	70	70	64	70	57	
Multidisciplined	25	29	13	23	27	18	
Flexible	60	63	53	58	58	57	
Common Sense	79	79	81	75	73	77	

In the education and training dimension, the lieutenant colonels had the higher mean score. The lieutenant colonels' mean score was 18.7 as opposed to the colonels' mean score of 18.1. The computed t-statistic for this dimension was 2.30. This computed value was higher than the critical t-value of 1.645. It can therefore be stated that the difference in mean scores for education and training is statistically significant at the .05 level. The categories scores which compose the education/training dimension were reviewed to determine possible reasons for the difference. The review showed the two groups relatively even in both PME and PCE, however, the lieutenant colonels' mean advanced degree score was 5.6 points higher than the colonels' advanced degree score. In fact, 87 percent of the lieutenant colonels have advanced degrees as compared to 81 percent of the colonels.

The colonels scored a mean of 19.5 in the professional attributes dimension, slightly higher than the lieutenant colonels' mean score of 19.0. A t-test comparison resulted in a computed t-value of 1.71. This computed value, although close, exceeded the predetermined critical t-value of 1.645. It can, therefore, be stated that the mean values for this dimension are statistically different at the .05 level. The three categories that make up this dimension are professional involvement, technical competence, and qualities and characteristics. The lieutenant colonels

scored higher than the colonels in all the elements of the qualities and characteristics category except for leadership. However, the colonels reported more technical competence in all fields of the technical competence category except maintenance. The overall numerical advantages gained by the two groups in these two categories was relatively small with respect to the categories' total individual weightings. Also, these advantages were almost equal in value and essentially cancelled each other out. The biggest difference was in the professional involvement category where the colonels scored higher than the lieutenant colonels in two of its three elements. The difference was .6 points which was about 10 percent of the total weighting for professional involvement. The difference in this category was probably the biggest factor in the difference in scores for the professional attributes dimension.

There were two factors used in the generalist vs specialist comparison. The first factor was based on where a respondent's model score was in relation to the population's mean model score. If the respondent's model score was higher than the mean, he/she was classified as a high scorer. If not, he/she was classified a low scorer. The second factor was a respondent's response to question 57. As discussed earlier in this chapter, if he/she gave a response of 4 or 5, he/she was classified a generalist. If

the response to question 57 was 1 or 2, the respondent was classified as a specialist.

With respect to the first factor, about 52 percent of the lieutenant colonels scored above their population mean model score, while about 48 percent of the colonels scored above theirs. A t-test was accomplished to determine if the difference in mean scores was significant. The level of significance was set at .05, which yielded a critical t-value of 1.645. The t-test comparison resulted in a computed t-value of 1.57. Since the computed t-value was smaller than the critical t-value, there was not enough evidence to conclude that the percentage of individuals who scored above or below the mean model scores of the two populations was statistically different at the .05 level.

The second factor, whether the respondents considered themselves generalists or specialists, showed different results. Approximately 54 percent of the lieutenant colonels considered themselves generalists, while over 64 percent of the colonels shared the same opinion of themselves. Table 3.16 displays the comparison statistics for question 57. The t-test comparison of the means for question 57 resulted in a computed t-value of 4.3, which was greater than the critical t-value of 1.645. The mean percentage of colonels who consider themselves generalists or specialists compared to the mean percentage of lieutenant

TABLE 3.16
Generalist vs. Specialist Perception Comparison

	Lieutenant Colonel			Colonel		
	mean	med	mode	mean	med	mode
Population	3.32	4.0	4.0	3.61	4.0	4.0
Career Logistician	3.26	4.0	4.0	3.55	4.0	4.0
Non Career Logistician	3.50	4.0	5.0	3.70	4.0	4.9
Duty AFSC (Population)						
40XX	3.12	3.0	2.0	3.29	4.0	4.0
60XX	2.96	3.0	2.0	3.44	4.0	4.0
64XX	2.86	2.0	2.0	3.14	3.0	4.0
65XX	2.79	2.0	2.0	2.70	2.0	2.0
66XX	4.40	5.0	5.0	3.94	4.0	4.0
004X	3.79	4.0	4.0	4.06	4.0	5.0
009X	4.18	4.0	4.0	4.00	4.0	4.0

The above statistics were based on the following Likert scale responses:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Disagree nor Disagree
- 4 = Agree
- 5 = Strongly Agree

colonels who consider themselves generalists or specialists is statistically different at the .05 level.

As mentioned earlier in this chapter for the lieutenant colonels, there was not enough evidence to conclude that there is a relationship between a respondent's model score and his perception of himself as a generalist or specialist. However, different results were obtained for the colonels.

TABLE 3.17

Contingency Tables Comparison of High/Low Model
Scorers By Generalist/Specialist Distinction

Lieutenant Colonels			
	Low Scorers	High Scorers	Row Total
Specialists	181	165	346
Generalists	228	283	511
-----	-----	-----	-----
Column Total	409	448	857

Chi-Square = 4.89

Contingency coefficient = .075

Colonels			
	Low Scorers	High Scorers	Row Total
Specialists	114	63	177
Generalists	198	223	421
-----	-----	-----	-----
Column Total	312	286	598

Chi-Square = 15.08

Contingency coefficient = .157

The critical chi-square table value at a significance level of .01 is 6.63

The same chi-square comparison method was used for the colonels as was used for the lieutenant colonels to determine the relationship between a respondents model score and his perception of himself as a generalist or

specialist. The critical chi-square value at a .01 significance level was 6.63. The computed chi-square value for the colonels was 15.08, which was higher than the critical value. There does appear to be a relationship between a colonels' model score and their perception of themselves as generalists or specialists. The contingency coefficient of .157, however, showed the relationship to be weak. Contingency tables of both populations are illustrated in Table 13.17.

Summary

This chapter reported the results of the survey and the comparison between colonel and lieutenant colonel logisticians by answering the investigative questions. The AFIT Model, with the weightings determined by Zavada, was used to compute model, dimension, and category scores for each respondent.

The first investigative question dealt with how the lieutenant colonels fit the dimensions of the AFIT Model. The three dimension scores represent the experience, education and training, and professional attributes possessed by the respondents. The career logisticians scored higher than the population and the non career logisticians in each of the three dimensions. The highest mean experience score was by the supply officers and the most prevalent experience score represented a combination of retail, combat logistics, staff, and command experience.

The highest mean education/training score was recorded by the acquisition officers. The most popular education and training score represented completion of an advanced degree and at least two PME courses. The professional attributes dimension showed a much larger variety of scores because of the larger number of elements it contained. The maintenance officers and logistics plans officers shared the high mean score in the professional attributes dimension.

Each of the dimension scores were composed of two or more category scores. Sixty-one percent of the population had a perfect score in the advanced positions category, while 11 percent had the perfect score in the professional involvement category. The maximum score for the population in the technical competence category was achieved by 6.6 percent, by 13 percent in the qualities and characteristics category, and by 22 percent in the logistics assignments category. Career logisticians had higher mean scores than non career logisticians in all eight categories of the AFIT Model.

The categories were also analyzed by career fields. The highest logistics assignments mean score was by the logistics plans officers and the highest advanced positions mean score by the maintenance officers. The highest mean score for professional involvement was by the acquisition officers, for technical competence by the directors of logistics, and for qualities and characteristics by the

supply officers. No single career field had the highest mean score in more than one category.

Frequencies and percentages were used to describe the AFIT Model elements. About 81 percent of the population had retail experience, mostly in base maintenance. Wholesale experience was claimed by 45 percent of the population, with most of this experience at ALCs. About 71 percent had combat experience, with 41 percent claiming actual wartime logistics experience. Acquisition experience was credited to half the officers. Command experience had a 64 percent response rate, it was one of the few areas where non career logisticians had a higher percentage of experience. Most of the officers, about 94 percent, had had staff experience, mainly at the MAJCOM level.

An advanced degree was held by 87 percent of the population, some form of PME by 98 percent, and PCE by 45 percent. Only one percent of the lieutenant colonels had a doctorate degree, all of them were career logisticians.

Approximately 35 percent of the lieutenant colonels were members of a professional logistics society. The areas where most of the officers rated themselves technically competent was logistics plans and maintenance, with 57 and 56 percent respectively. Only 26 percent rated themselves technically competent in procurement.

Among the qualities and characteristics, leadership was claimed most frequently, while managerial ability, job

knowledge, and common sense were close behind. The quality most lacking in the officers was multidisciplined, while integrity was the quality most commonly added to the list in the "other" option.

The second investigative question addressed the lieutenant colonels overall fit to the AFIT Model, using the respondents' model scores. Scores for the population were reviewed, as well as scores for career logisticians, non career logisticians, and the individual career fields. The mean model score for all the lieutenant colonels was 65.0 and the range was from 20.7 to 100. The career logisticians scored the highest mean model score. Three officers achieved a perfect model score of 100, all were from different career fields. The highest mean model score among the career fields was the director of logistics officers, and the lowest was the DCRMs. An analysis of variance showed a significant difference between the career logistician and the non career logistician mean model scores. A significant difference was also noted between several AFSCs within the career logistician group. However, no significant differences were noted among the AFSCs within the non career logistician group.

The third investigative question asked whether the lieutenant colonels view themselves as generalists or specialists, and how that opinion compares to their fit to the AFIT Model. The population was more inclined to view

themselves as generalists than specialists. This was also true for both career and non career logisticians. The strongest sense of being a generalist among the career fields came from the logistics plans officers, however, three of the career fields showed disagreement with being a generalist.

The population, career logisticians, and non career logisticians were analyzed using the chi-square method to determine if there was a relationship between the respondents' perceptions of themselves as generalists or specialists and their model score. Neither the population nor the non career logisticians showed any statistical relationship. Only the career logisticians showed a relationship between their self perceptions and their model scores.

The forth investigative question compared the lieutenant colonels to the colonels and identified some of the differences. The colonels had a slightly higher mean model score, however, a t-test showed no statistical differences existed. T-tests performed on the two populations' mean dimension scores, however, showed statistically significant differences existed in all three dimensions.

Another t-test was performed to determine if there was a difference in the two populations' views of themselves as generalists or specialists. The resulting t-value confirmed

a statistically significant difference existed. A chi-square test confirmed that no relationship existed between the lieutenant colonels' model scores and their views of themselves as generalists or specialists. Using that same test, a weak relationship was found between the colonels' perceptions and their model scores.

While this chapter reported the findings of this research, the next chapter will draw conclusions from these findings and suggest recommendations.

IV. Conclusions and Recommendations

Review

"Lt General Leo Marquez, Deputy Chief of Staff of Logistics and Engineering, HQ USAF, has expressed concern about the preparedness of senior military logisticians to effectively manage the total logistics system" (13:102). This concern has renewed interest in whether military logisticians should generalize and have a broad experience base or specialize and focus their experience in one logistics area. No formal plan has been implemented to guide the military logistician toward a generalized or specialized career. Current career guidance in AFR 36-23 and AFR 36-1, however, seems to promote generalization by encouraging broadening and varied levels of experience. There are arguments for both the generalists and the specialists, some have proposed a mix, such as 20 percent generalists and 80 percent specialists may be an effective mix. As of yet, whether the guidance in AFRs 36-23 and 36-1 in itself has been sufficient enough to produce an adequate mix of generalists and specialists has not been determined.

To address this lack of empirical knowledge, research was begun at AFIT in 1984. The AFIT Model, created by Overbey and modified by Zavada, was developed to objectively assess these qualities, educational, and experience levels of senior military logisticians. The work by Zavada

work by Zavada assessed the qualifications of colonels occupying senior military logistician positions.

This research, therefore, was intended to provide insight into what levels of experience and qualities currently exist in the next generation of senior military logisticians, specifically, Air Force lieutenant colonels. A secondary objective was to identify the similarities and differences in the qualities and experience between Air Force colonels and lieutenant colonels currently in logistics career fields. For this comparison, the data from Zavada's 1986 survey of colonel logisticians was used to create a second data base. The information from that data base was compared to the information from the lieutenant colonel data base created during this research.

The research design consisted of three phases. Phase one was the review of the literature applicable to Air Force career development and associated issues. Phase two described the data collection procedure, using Zavada's survey, and analyzed the AFIT Model scoring procedures. Phase three analyzed the data from the lieutenant colonels and compared the results to the results from the data base created from Zavada's research. A total of 939 out of 1460 lieutenant colonels returned their surveys for a response rate of 64.3 percent. The following sections report the conclusions for each investigative question and propose five recommendations.

Conclusions for Investigative Question 1.

What are the experience, education and training, and professional attributes of Air Force lieutenant colonel logisticians?

The experience dimension was broken down into two categories; assignments in logistics and advanced positions. Only 22 percent of the lieutenant colonels had experience in all the major logistics areas of retail, wholesale, combat logistics, and acquisition. Conversely, only 19 percent had experience in less than two of these major areas. Therefore, 81 percent of the officers had experience in at least two of the major logistics areas. Most of the officers, about 61 percent, had both command and staff experience, however an officer was more likely to have staff experience.

The biggest differences between the career logisticians and non career logisticians in the logistics assignments area was in wholesale and combat logistics assignments. There was a significant difference in both retail and acquisition as well. The career logisticians possessed more experience in each of the four major logistics areas than the non career logisticians.

As expected, high levels of education were very common among all the lieutenant colonels. Almost 40 percent of the officers met all three elements of the education and training dimension. Over 97 percent met the PME

requirement. Forty-six percent met both the requirements for PME and possessed an advanced degree. PCE was where most of the officers fell short; less than half had attended PCE logistics courses.

There was not much difference between the mean scores in the education and training dimension of the career and non career logisticians. The slight difference that was present was attributable to the career logisticians' greater participation in logistics PCE courses.

The professional attributes dimension was a very discriminating dimension for the lieutenant colonels. This was true especially in professional involvement and technical competence. Only 11 percent of the officers received credit for all three elements of professional involvement, which included membership, active participation, and attendance in logistics society meetings or conferences. Almost 47 percent had no professional involvement of any sort. Not surprisingly, career logisticians were significantly more involved in logistics societies than were non career logisticians.

Technical competency was a difficult category for the respondents. None of the six elements of technical competency had more than 57 percent of the lieutenant colonels claim to be technically competent. About 56 percent rated themselves technically competent in either maintenance or logistics plans and 43 percent were competent

in supply. Only 33 percent were technically competent in transportation and 26 percent in procurement. Only 7 percent of the population were technically competent in all areas, however, 62 percent rated themselves competent in at least two areas.

The career logisticians and non career logisticians had only a slightly different ranking of qualities and characteristics. The population ranking was the same as the career logisticians'. Table 4.1 shows how the lieutenant colonels ranked the qualities and characteristics of the AFIT Model. These rankings are based on the percentage of officers who felt they possessed each of the qualities and characteristics. The only difference in ranking between the two groups is a trading of ranking for job knowledge and common sense. This is not surprising, as it is logical to assume that career logisticians would, as a whole, have more time in their respective areas of logistics. Furthermore, a non career logistician who may not have much experience in logistics may have to rely very heavily on common sense, since his/her job knowledge would be limited.

Leadership was undisputedly the trait most common to the officers, with approximately 93 percent of the lieutenant colonels reporting they possessed a high degree of this quality. Managerial ability, at 88 percent, was also very common. Common sense and job knowledge were also very popular traits, however, the career and non career

TABLE 4.1

Personal Qualities and Characteristics Self-Rankings
of Career Compared to Non Career Logisticians

Career	Non Career
1. Leadership	1. Leadership
2. Managerial Ability	2. Managerial Ability
3. Job Knowledge	3. Common Sense
4. Common Sense	4. Job Knowledge
5. Communicative Skills	5. Communicative Skills
6. Dedication	6. Dedication
7. Flexibility	7. Flexibility
8. Creativity	8. Creativity
9. Multidisciplined	9. Multidisciplined

logisticians differed as to their importance. The least common trait was the quality of multidisciplined, with only 25 percent of the lieutenant colonels claiming this as an important quality.

It is difficult to say whether the differences in professional attributes between career and non career logisticians is significant by observation alone. It can be said that the main contributors in that difference were professional involvement and technical competence.

Strengths and Weaknesses. The dimension and category scores, as well as the elements, provide an easy way of pinpointing the strengths and weaknesses of the lieutenant colonel logisticians. In the experience dimension, the greatest strengths were in retail, combat logistics, and staff experience. The areas of weakness are in acquisition and wholesale experience.

The lieutenant colonels were very strong in two areas of education and training, possessing an advanced degree and PME. On the other hand, PCE was a weak area among the lieutenant colonels.

The main areas of strength in the professional attributes dimension were in the qualities and characteristics category. Of the 9 qualities and characteristics listed, only multidisciplined and creativity were possessed by less than half of the lieutenant colonels. However, the weaknesses in the other two categories were more numerous. In the professional involvement category, all three of the elements could be called weaknesses. Only 35 percent of the respondents were even members of a logistics society. In the technical competence category, only maintenance and logistics plans were credited to more than half the population. Technical competency in transportation and procurement were exceptionally weak.

Conclusions for Investigative Question 2.

How well do the lieutenant colonel logisticians fit the AFIT Model? The respondents, as a whole, do not fit the model very well. The average model score for the population was 65.0. As expected, the career logisticians scored better than the non career logisticians. For career logisticians, the mean score was 68.2, while for non career logisticians, the mean score was only 55.0. There was a

wide range of scores for both the career and non career logisticians. The minimum model score for career logisticians was 23.6, for non career logisticians it was 20.7. There were, however, three officers who achieved a perfect score of 100, two career and one non career logisticians.

All of the AFSC groups, mean model scores ranged between 62.3 and 66.6 except for the DCRM officers, who had the lowest mean score of 55.7.

Conclusions for Investigative Question 3.

Do the lieutenant colonels view themselves as generalists or specialists? How does that opinion compare to their model scores?

The lieutenant colonels, as a whole, were inclined to view themselves as generalists. This opinion was held by slightly over half of the population. Fifty-four percent considered themselves generalists, while 37 percent considered themselves specialists. Only 9 percent were neutral. The generalist opinion was also prevalent in both the career and non career logisticians, with the non career logisticians being the strongest. The non career logisticians had a mode score of 5 on the 5-point Likert scale and had 60 percent of this group viewed themselves as generalists. The population and non career logisticians showed no relationship between high/low model scorers and

those who viewed themselves as generalists or specialists. The career logisticians did show a weak relationship.

The AFSC groups were split on their views of themselves as generalists or specialists. Four groups viewed themselves as generalists and three viewed themselves as specialists. The director of logistics officers, DCRMs, and logistics plans officers all had a strong view of themselves as generalists, while the maintenance officers also viewed themselves as generalists. The transportation officers, supply officers, and acquisition officers all tended to view themselves as specialists. The officers with the strongest generalist perceptions were the logistics plans officers. This perception along with the fact that the logistics plans officers were only .1 percent from the highest mean model score tends to reinforce the belief that logistics plans officers may be the "true" Air Force logisticians (13:118).

It was interesting to note that DCRMs viewed themselves, rather strongly, as generalists when they had a significantly lower mean model score than all the other AFSC groups. Equally interesting was the fact that, as a group, the supply officers tended to view themselves as specialists when they scored the second highest AFSC mean model score.

Conclusions for Investigative Question 4.

How do the lieutenant colonel logisticians compare with the colonels? What are the differences and what do they indicate?

The colonels recorded a slightly higher model score than the lieutenant colonels, however a t-test indicated that the difference was statistically significant. Therefore, neither the colonels nor the lieutenant colonels actually fit the AFIT Model to a high degree.

There were significant differences noted between the colonels and the lieutenant colonels in each of the three dimensions of the AFIT Model. The colonels, not surprisingly, had more experience than the lieutenant colonels. What was surprising, however, was the fact that both groups had the same mean score in the logistics assignments category. The difference in experience was almost entirely due to the colonels' greater experience in both commander and staff positions.

The lieutenant colonels had more education and training than the colonels in all three of its elements. The biggest advantage was in advanced degrees, where 6 percent more lieutenant colonels than colonels possessed an advanced degree. This may be due, in part, to the perception held by many of the younger generation of officers that an advanced degree increases the probability of promotion. This perception may not be as strong in the generally older colonels' generation. The lieutenant colonels' generation has not had as much opportunity for war experience, and may feel an advanced degree may make them more competitive for promotions. The results of the comparison in combat

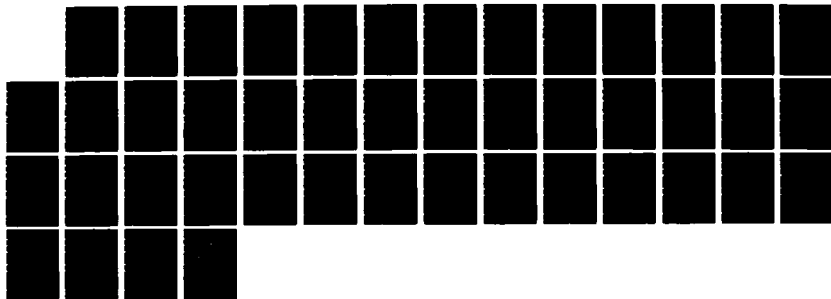
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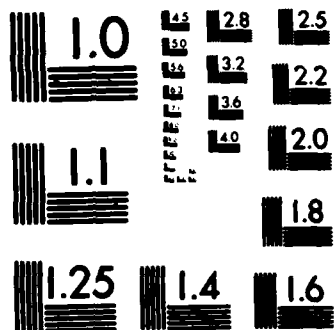
THE NEXT GENERATION SENIOR MILITARY LOGISTICIAN: AN
EMPIRICAL STUDY OF UN (U) AIR FORCE INST OF TECH
WRIGHT-PATTERSON AFB OH SCHOOL OF SYST J K BEALS
SEP 87 AFIT/GLM/LSN/875-3 F/G 5/9

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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

logistics assignments showed 71 percent of the lieutenant colonels receiving credit where only 64 percent of the colonels received credit. However, 45 percent of the colonels had had actual war experience as opposed to only 41 percent of the lieutenant colonels.

The colonels were more involved with professional logistics societies. They had more membership, attendance of meetings and conferences, and more active participation. The colonels appear to be more technically competent in the logistics career fields. Maintenance was the only field where the lieutenant colonels, as a group, were more technically competent than the colonels. On the other hand, the lieutenant colonels indicated they possessed all the qualities and characteristics, except leadership, to a greater degree than did the colonels. It may be that the lieutenant colonels feel they make up for what they lack in technical competence by emphasizing their professional qualities and characteristics. Furthermore, the colonels have had more time in their careers and were longer separated from the more specialized logistics jobs. The colonels, therefore, may rely more on leadership than competency to be successful.

There was not a significant difference in the percentage of officers who scored above or below the mean model score between the colonels and lieutenant colonels. There was, however, a difference in the two groups views of

themselves as generalists or specialists. Over 64 percent of the colonels considered themselves to be generalists, while only 54 percent of the lieutenant colonels considered themselves to be generalists. One possible reason for this was that the colonels had a significantly larger percentage of their officers in the two more general career fields; the DCRMs and the maintenance officers. These two groups also had some of the strongest views of themselves as generalists. Also, for the lieutenant colonels, there was no statistical relationship between their model scores and their views of themselves as generalists or specialists. This was not the case with the colonels, probably because more of the colonels classified themselves as either generalists or specialists, and less were neutral.

Discussion

Although validating the AFIT Model was not one of the objectives of this research, it is important to know how the lieutenant colonels evaluated the model. Table 4.2 shows the mean scores for the general questions in the survey that dealt with model validation. These scores were based on a Likert scale of 1 to 5. The table shows that all of the elements evaluated in these questions receive a mean score of approximately 3 or higher. This indicates that the lieutenant colonels, as a group, feel the AFIT model does represent the qualities, characteristics, and background necessary to a professional military logistician.

TABLE 4.2
Mean Scores for General Questions Comparison

	Lieutenant Colonel			Colonel		
	Pop	CL	NCL	Pop	CL	NCL
Advanced Degree	3.62	3.67	3.48	3.64	3.75	3.51
AFIT Degree	2.98	2.92	3.20	3.04	2.99	3.09
Prof Involvement	3.00	3.04	3.05	3.29	3.33	3.22
Multidisciplined	4.00	3.99	4.01	4.10	4.06	4.14
Command Experience	3.98	4.01	3.90	4.23	4.24	4.22
Staff Experience	4.43	4.50	4.21	4.43	4.49	4.36
Success Qualities	4.00	4.01	3.95	4.04	4.15	3.92
Qualities Same for All Officers	3.93	3.85	4.19	4.13	4.11	4.16
PME	2.97	2.90	3.19	3.34	3.33	3.35
Continuing Education	3.84	3.83	3.89	3.79	3.74	3.86
Logistics Background:						
Retail	4.12	4.26	3.67	4.11	4.37	3.79
Wholesale	3.89	4.02	3.50	3.95	4.19	3.65
Combat	3.78	3.84	3.60	3.69	3.86	3.49
Acquisition	3.56	3.60	3.43	3.54	3.64	3.43
International	3.14	3.15	3.09	3.10	3.15	3.05
Technical Competence:						
Transportation	3.31	3.33	3.25	3.33	3.37	3.30
Supply	3.60	3.63	3.53	3.63	3.69	3.55
Maintenance	3.66	3.68	3.60	3.70	3.74	3.65
Procurement	3.31	3.32	3.25	3.40	3.39	3.41
Logistics Planning	3.70	3.72	3.64	3.66	3.69	3.62

The lieutenant colonels felt that the components of the AFIT Model varied in their importance. Experience was chosen, overwhelmingly, as the aspect of the logisticians' careers which best prepared them to fill their current logistics positions. Experience was also most frequently cited as the source through which technical competence in the logistics fields was gained.

Education and training was the lowest weighted model dimension, and was cited as the most important factor in preparing them for a logistics position by less than 5 percent of the respondents. Education and training was not much of a discriminating factor in the scoring of the logisticians, as most of the officers fulfilled the educational criteria of the model. PCE was the only discriminating element in the education and training dimension.

As noted by Zavada (13:124), there seemed to be an interactive effect between experience and professional attributes. Experience seemed to influence technical competency, and experience in command and staff areas may have influenced some of the personal qualities and characteristics, such as leadership and managerial ability.

Most of the respondents agreed that the qualities and characteristics that distinguish a successful logistician from an unsuccessful one are the same that distinguish any successful officer from an unsuccessful one. This implies

that any officer might score relatively well in the professional attributes portion of the AFIT Model. It was interesting to note that most officers felt that multidisciplined experience was important to the military logistician, however, that trait was rated the lowest of the professional attributes.

Meeting all the criteria of the AFIT Model was not an easy task. Only 3 of the 939 respondents achieved the perfect model score of 100. Therefore, although it is possible to fulfill all the model criteria during a career, very few have done so. The average model score for the next generation of senior Air Force logisticians was 65.0. The respondents' miscellaneous comments are displayed in Appendix C.

Recommendations

This research demonstrated that the degree of qualification among current lieutenant colonels in logistics positions ranges from what may be considered "poor" to "perfectly" qualified based on the elements of the AFIT Model.

The military logisticians in this study and Zavada's study indicated agreement in principle that the criteria comprising the AFIT Model are valuable to the development of the military logistician. The military logisticians in this study and Zavada's study differ with Overbey's logistics experts only in degree. This researcher,

therefore, believes that the AFIT Model is a valid representation of the qualities, characteristics, and background requirements of the professional military logistician. As such, the AFIT Model could be a useful tool for career development planning as well as assessing an officer's "maturity" in the total systems logistics environment. The following recommendations are submitted:

1. A sensitivity analysis should be performed on the survey used in Zavada's research and this research. There were terms that several respondents indicated they could not understand. Some of these terms were; retail, wholesale and combat logistics. Also, several of the questions used a Likert scale to record a response, yet the dichotomous method was used for scoring respondents. Furthermore, the qualities and characteristics were awarded to individuals if they allocated at least 10 of 100 points to a particular trait. Sensitivity analysis would determine if these subjective methods of scoring or unclear knowledge of definitions could possibly have influenced the respondents' scores to any degree of significance.

2. Additional research should be conducted, as Zavada recommended, to identify the minimum fit criteria associated with the AFIT Model for an officer to be considered sufficiently qualified to "manage the complexity of the Air Force logistics system." This information would be useful since the qualification levels of the current and the

next generation of senior logisticians has been identified through this and Zavada's research. If it is found that the current personnel system has not produced enough qualified logisticians, it may be time to change the system and insure that upcoming generations are sufficiently qualified.

3. The appropriate mix of generalists and specialists should be determined by the appropriate Air Force authorities. Once this is accomplished, the AFIT Model could be used to identify logisticians as either generalists or specialists. Then the data contained in this and Zavada's research could be used to determine the level of specialization of the current and next generation of senior military logisticians. This information would be invaluable in determining whether formal career guidance is needed, or if the current guidance is adequate to meet Air Force goals.

4. In concert with another of Zavada's recommendations, the AFIT Model should be made available to all logisticians by incorporating it into the career guidance available for logistics officers.

5. Further use of the survey instrument should incorporate these changes:

a. Definitions for retail, wholesale, combat logistics, and staff experience should be provided to insure all respondents have the same information for formulating a response.

b. The word "months" should be highlighted and/or underlined in the instructions for questions 13 through 34. Some respondents showed their experience in years.

c. In question 35, the "not completed" response should be moved from 4 to 1, to be consistent with non compliance in other questions. Also, it should be called "non completed/taken."

d. The words "other than not technically competent" in questions 43, 45, 47, 49, and 51 should be reworded in terms of the likert scale that are objective and easy to understand.

Appendix A: Survey Package




DEPARTMENT OF THE AIR FORCE
AIR UNIVERSITY
AIR FORCE INSTITUTE OF TECHNOLOGY
WRIGHT-PATTERSON AIR FORCE BASE OH 45433-6583

REF: TO
ATTN OF LSM

SUBJECT Senior Military Logistician Survey Package

1. Military logisticians play a vital role in planning and integrating our nation's defense resources to create and sustain effective combat operations. Currently, much attention is being focused on the senior military logistician.
2. You possess an Air Force Specialty Code in a logistics functional area which identifies you as a member of the Air Force logistics community. As such, information about your job experience, education and training, as well as your opinions about the logistics career field will be extremely valuable to research being conducted in this area.
3. For the results of this research to accurately reflect the Air Force logistics community, it is important that each questionnaire be completed and returned. Therefore, please take the time to complete the attached survey and return it in the enclosed envelope within ten working days.
4. All the information you provide will be strictly confidential. Your individual responses will be combined with others and will not be attributed to you personally. The data gathered will become a part of an Air Force Institute of Technology research project on senior Air Force military logisticians.
5. Your participation is completely voluntary but I would greatly appreciate your help. Thank you for your assistance.


DAVID E. LLOYD, Lt Col, USAF
Director, Grad Log Mgt Program
School of Systems and Logistics

2 Attn
1. Questionnaire
2. Return Envelope

STRENGTH THROUGH KNOWLEDGE

INSTRUCTIONS

1. Please answer each question directly on the questionnaire and encode your response(s) on the OPSCAN answer sheet provided using a soft (#2) pencil. Be careful to note that some questions allow you to circle more than one response, while others permit only one response. Therefore, carefully read the individual instructions for each question.

2. Questions A-G should be answered directly on the questionnaire and will not be transferred to the OPSCAN answer sheet. You may find questions A and B difficult to answer, but your responses to these questions are critical to the essence of this research. Therefore, please take the time to answer these questions as carefully and honestly as you can. Remember, there are no right or wrong answers to this questionnaire.

3. When you have completed the questionnaire and transferred questions 1-77 to the OPSCAN answer sheet, PLEASE RETURN THE ENTIRE QUESTIONNAIRE AND THE OPSCAN ANSWER SHEET IN THE ENCLOSED ENVELOPE.

4. You should be able to complete this questionnaire and the OPSCAN answer sheet in less than 45 minutes.

QUESTIONS 1-5 ARE DESIGNED TO GATHER DEMOGRAPHICAL DATA ON SURVEY RESPONDENTS.

1. Which of the following logistics AFSC's have you been awarded during your military career? (Circle all that apply)

- 1) 31XX MISSILE MAINTENANCE
- 2) 40XX MAINTENANCE
- 3) 60XX TRANSPORTATION
- 4) 64XX SUPPLY
- 5) 65XX CONTRACTING/MANUFACTURING
- 6) 66XX LOGISTICS PLANS AND PROGRAMS
- 7) 004X DIRECTOR OF LOGISTICS
- 8) 009X DEPUTY COMMANDER FOR RESOURCE MANAGEMENT

2. What is the source of your commission?

- 1) Air Force Academy
- 2) OTS/OCS
- 3) ROTC
- 4) Other

3. Have you had prior enlisted service experience ?

- 1) No prior service
- 2) Yes, under 4 years
- 3) Yes, over 4 years

4. Was any of your prior service experience in a logistics career field?

- 1) No prior service
- 2) Yes
- 3) No

5. What is your aeronautical rating?

- 1) Not rated
- 2) Pilot
- 3) Navigator
- 4) Other

QUESTIONS 6-12 RELATE TO THE LEVEL OF EXPERIENCE YOU POSSESS IN VARIOUS FUNCTIONAL AREAS. YOUR RESPONSES SHOULD INCLUDE EXPERIENCE GAINED DURING YOUR AIR FORCE CAREER INCLUDING PRIOR ENLISTED SERVICE IF APPLICABLE.

6. I have had retail logistics experience in (circle all that apply):

- 1) Base level maintenance
- 2) Base level supply
- 3) Base level log plans
- 4) Base level transportation
- 5) Base level procurement
- 6) I do not have retail logistics experience.
- 7) Other (specify) _____

7. I have had wholesale logistics experience in (circle all that apply):

- 1) Air Logistics Center
- 2) AFLC Career Broadening Program
- 3) Education With Industry
- 4) I do not have wholesale logistics experience
- 5) Other (specify) _____

8. I have had combat logistics experience in (circle all that apply):

- 1) Actual wartime experience (specify): _____
- 2) Combat exercise participation and planning (specify) _____
- 3) Mobility planning
- 4) I do not have combat logistics experience.
- 5) Other (specify) _____

9. I have had acquisition logistics experience in (circle all that apply):

- 1) Program management in AFSC
- 2) Program management in AFLC
- 3) Program management in other MAJCOMS
- 4) Education with industry
- 5) I do not have acquisition logistics experience.
- 6) Other (specify) _____

10. I have had international logistics experience in (circle all that apply):

- 1) International Logistics Center(ILC)
- 2) HQ USAF Country/Program Manager
- 3) MAJCOM Country/Program Manager(Other than ILC)
- 4) Assignment to MAAG or similar in-country organization
- 5) I do not have international logistics experience.
- 6) Other (specify) _____

11. I have had staff level experience at (circle all that apply):

- 1) Unified Command
- 2) HQ USAF
- 3) MAJCOM
- 4) Numbered Air Force/Air Division
- 5) Wing/Base
- 6) I do not have staff level experience.
- 7) Other (specify) _____

12. My experience as a commander has been(circle all that apply):

- 1) I do not have experience as a commander
- 2) Wing Commander
- 3) Wing Deputy Commander Resources
- 4) Wing Deputy Commander Maintenance
- 5) Wing Deputy Commander Operations
- 6) Squadron, Other LOGISTICS functional area
- 7) Squadron, NON LOGISTICS functional area
- 8) Other (specify) _____

QUESTIONS 13-34 RELATE TO THE AMOUNT OF TIME YOU HAVE SPENT IN VARIOUS FUNCTIONAL AREAS. USE THE FOLLOWING KEY TO MARK YOUR RESPONSES FOR THESE QUESTIONS. (Note: Overlaps may occur in answering these questions. For example, 24 months in maintenance at the retail level should be counted as 24 months in maintenance AND 24 months in retail and so on.)

1 = NONE

2 = LESS THAN 18 MONTHS

3 = 18 - 36 MONTHS

4 = 37 - 48 MONTHS

5 = GREATER THAN 48 MONTHS

Please indicate the number of months of STAFF experience that you have had in each area.

13. Maintenance	_____	19. Retail logistics	_____
14. Transportation	_____	20. Wholesale logistics	_____
15. Supply	_____	21. Combat logistics	_____
16. Logistics Planning	_____	22. Acquisition logistics	_____
17. Procurement	_____	23. International logistics	_____
18. Non Logistics areas	_____		

Please indicate the number of months you have been assigned in each of the following areas, NOT INCLUDING STAFF EXPERIENCE.

24. Maintenance	_____	30. Retail logistics	_____
25. Transportation	_____	31. Wholesale logistics	_____
26. Supply	_____	32. Combat logistics	_____
27. Logistics Planning	_____	33. Acquisition logistics	_____
28. Procurement	_____	34. International logistics	_____
29. Non logistics areas	_____		

QUESTIONS 35-56 RELATE TO YOUR EDUCATIONAL BACKGROUND, TRAINING, AND PROFESSIONAL INVOLVEMENT IN LOGISTICS ORGANIZATIONS.

35. I have an advanced degree in (circle all that apply):

- 1) I do not have an advanced degree.
- 2) Masters/ Non logistics area
- 3) Masters/ Logistics area (AFIT)
- 4) Masters/ Logistics area (Other than AFIT)
- 5) Doctorate

For questions 36-39, please indicate the following Professional Military Education (PME) programs you have completed using the following key:

- | | |
|---------------|--------------------|
| 1 = Residence | 3 = Correspondence |
| 2 = Seminar | 4 = Not completed |

36. SOS _____
37. Intermediate Service School... _____
38. Senior Service School _____
39. Other PME _____
(please specify) _____

40. How many Professional Continuing Education (PCE) courses related to logistics have you completed?

- | | |
|---------|-----------------|
| 1) None | 4) Three |
| 2) One | 5) Four |
| 3) Two | 6) Five or more |

41. How many technical training courses have you completed in any of the logistics functional areas?

- | | |
|---------|-----------------|
| 1) None | 4) Three |
| 2) One | 5) Four |
| 3) Two | 6) Five or more |

FOR QUESTIONS 42, 44, 46, 48, 50: Using the scale below, please indicate what you consider to be your level of TECHNICAL competence in the following functional areas.

1	2	3	4	5	6	7	8	9
Not				Fairly				Highly
Competent				Competent				Competent

42. My level of competence

in MAINTENANCE is: 1 2 3 4 5 6 7 8 9

43. If you rated yourself OTHER THAN not technically competent in MAINTENANCE, please indicate the means through which you achieved your competence. (Circle all that apply)

- 1) I do not consider myself technically competent in maintenance
- 2) Direct job experience (working in your primary job)
- 3) Interactive job experience (with other organizations)
- 4) Association with others in the field (outside your job)
- 5) Technical training
- 6) Professional Continuing Education (PCE)
- 7) Professional Military Education (PME)
- 8) Other (specify) _____

44. My level of competence

in SUPPLY is: 1 2 3 4 5 6 7 8 9

45. If you rated yourself OTHER THAN not technically competent in SUPPLY, please indicate the means through which you achieved your competence. (Circle all that apply)

- 1) I do not consider myself technically competent in supply
- 2) Direct job experience (working in your primary job)
- 3) Interactive job experience (with other organizations)
- 4) Association with others in the field (outside your job)
- 5) Technical training
- 6) Professional Continuing Education (PCE)
- 7) Professional Military Education (PME)
- 8) Other (specify) _____

46. My level of competence

in TRANSPORTATION is: 1 2 3 4 5 6 7 8 9

47. If you rated yourself OTHER THAN not technically competent in TRANSPORTATION, please indicate the means through which you achieved your competence. (Circle all that apply)

- 1) I do not consider myself technically competent in transportation.
- 2) Direct job experience (working in your primary job)
- 3) Interactive job experience (with other organizations)
- 4) Association with others in the field (outside your job)
- 5) Technical training
- 6) Professional Continuing Education (PCE)
- 7) Professional Military Education (PME)
- 8) Other (specify) _____

48. My level of competence

in LOGISTICS PLANNING is: 1 2 3 4 5 6 7 8 9

49. If you rated yourself OTHER THAN not technically competent in LOGISTICS PLANNING, please indicate the means through which you achieved your competence. (Circle all that apply)

- 1) I do not consider myself technically competent in Logistics Planning.
- 2) Direct job experience (working in your primary job)
- 3) Interactive job experience (with other organizations)
- 4) Association with others in the field (outside your job)
- 5) Technical training
- 6) Professional Continuing Education (PCE)
- 7) Professional Military Education (PME)
- 8) Other (specify) _____

50. My level of competence
in PROCUREMENT is: 1 2 3 4 5 6 7 8 9
51. If you rated yourself OTHER THAN not technically competent in
PROCUREMENT, please indicate the means through which you
achieved your competence. (Circle all that apply)
- 1) I do not consider myself technically competent in
procurement.
 - 2) Direct job experience (working in your primary job)
 - 3) Interactive job experience (with other organizations)
 - 4) Association with others in the field (outside your job)
 - 5) Technical training
 - 6) Professional Continuing Education (PCE)
 - 7) Professional Military Education (PME)
 - 8) Other (specify) _____
52. Are you a member of any professional organizations DIRECTLY
related to logistics?(Circle all that apply)
- 1) I am not a member of any professional organizations
directly related to logistics.
 - 2) I am a member of Society of Logistics Engineers (SOLE)
 - 3) I am a member of other logistics professional
organizations.(specify) _____
53. Have you ever been an officer, speaker, moderator, or panel
leader at any professional logistics organization function?
- 1) Yes
 - 2) No
54. How often do you attend conferences, meetings, or other
functions of any professional logistics organizations?
- 1) Very often
 - 2) Often
 - 3) Occasionally
 - 4) Seldom
 - 5) Never
55. What aspect of your background BEST prepared you to fill your
current logistics position (or your most recent one if not
currently assigned in logistics)? CIRCLE ONLY ONE.
- 1) Experience.
 - 2) Advanced education.
 - 3) Technical training.
 - 4) PME.
 - 5) Other (specify) _____

56. If you had to select the replacement for your current logistics position, what dimension of experience would you look for in that person?

- 1) I am not currently filling a logistics position.
- 2) Breadth of experience (i.e., experience in many logistics areas) would be more important
- 3) Depth of experience (i.e., extensive experience in a particular logistics area) would be more important

QUESTIONS 57-77 ARE DESIGNED TO ELICIT YOUR OPINION ON VARIOUS ISSUES RELATED TO THE DEVELOPMENT OF THE PROFESSIONAL MILITARY LOGISTICIAN. PLEASE USE THE SCALE SHOWN HERE TO ANSWER THESE QUESTIONS.

	1	2	3	4	5
	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
57. I consider myself to be a general logistician rather than a specialist in one logistics function.	1	2	3	4	5
58. Military logisticians should possess an advanced degree.	1	2	3	4	5
59. Do you feel military logisticians should attain an advanced degree in Logistics Management in residence at the Air Force Institute of Technology?	1	2	3	4	5
60. Military logisticians should be active in a professional logistics society.	1	2	3	4	5
61. Military logisticians should be multidisciplined; that is, experienced in more than one functional area of military logistics.	1	2	3	4	5
62. Military logisticians should have experience as a commander.	1	2	3	4	5
63. Military logisticians should have experience as a staff officer.	1	2	3	4	5
64. There are identifiable qualities and characteristics which distinguish successful military logisticians from unsuccessful ones.	1	2	3	4	5

	1	2	3	4	5
	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
65. The identifiable qualities and characteristics which distinguish the successful military logistician from the unsuccessful one are the same as the qualities and characteristics which distinguish any successful military officer from an unsuccessful one.	1	2	3	4	5
66. Professional military education (PME) is a valuable source of education in the area of logistics.	1	2	3	4	5
67. The Air Force should establish a specific course of education for senior directors of military logistics.	1	2	3	4	5
A senior military logistician should have had AT LEAST ONE ASSIGNMENT in:					
68. Retail logistics	1	2	3	4	5
69. Wholesale logistics	1	2	3	4	5
70. Combat logistics	1	2	3	4	5
71. Acquisition logistics	1	2	3	4	5
72. International logistics	1	2	3	4	5
A senior military logistician should be TECHNICALLY COMPETENT in:					
73. Transportation	1	2	3	4	5
74. Supply	1	2	3	4	5
75. Maintenance	1	2	3	4	5
76. Procurement	1	2	3	4	5
77. Logistics Planning	1	2	3	4	5

THIS CONCLUDES THE OPSCAN CODED PORTION OF THE QUESTIONNAIRE.
PLEASE ANSWER THE QUESTIONS ON THE NEXT PAGE
DIRECTLY ON THE QUESTIONNAIRE.
BE SURE TO RETURN THE ENTIRE QUESTIONNAIRE AND
THE OPSCAN ANSWER SHEET.

- A. The following list identifies some of the qualities and characteristics frequently cited in the literature as desirable in a professional military logistician. Given 100 points, please allocate them based on YOUR OWN ASSESSMENT of the RELATIVE DEGREE to which YOU possess any or all of these characteristics. FEEL FREE TO USE ZEROS IF APPROPRIATE.

Leadership	_____
Managerial Skills	_____
Job Knowledge	_____
Creativity	_____
Dedication	_____
Communicative Skills	_____
Flexibility/Adaptability	_____
Common Sense	_____
Multidisciplined	_____
(in the logistics fields)	_____
Other (specify) _____	_____
Total =	100

- B. Now, please allocate another 100 points based on YOUR OWN FEELINGS of the RELATIVE IMPORTANCE of these qualities to the PROFESSIONAL MILITARY LOGISTICIAN. FEEL FREE TO USE ZEROS IF APPROPRIATE.

Leadership	_____
Managerial Skills	_____
Job Knowledge	_____
Creativity	_____
Dedication	_____
Communicative Skills	_____
Flexibility/Adaptability	_____
Common Sense	_____
Multidisciplined	_____
(in the logistics fields)	_____
Other (specify) _____	_____
Total =	100

- C. Please describe any OTHER characteristics and qualities you think are vital to a senior military logistician.

- D. What is your current duty title? _____

- E. What is your duty AFSC? _____ Your primary AFSC? _____

- F. In which Major Command(s) have you spent the MAJORITY of your career? _____

- G. What percentage(s) of your career was spent in the command(s) that you identified? _____

Appendix B: SPSSx Data Analysis Program

```
Set width=80
Title      'ltcplus'
File Handle Loggies/Name='ltcpop'
File Handle Output/Name='out5'
Data List   File=Loggies NOTABLE Fixed Records=4/
  1 ID 1-4/
  2 AFSC31 1 AFSC40 2 AFSC60 3 AFSC64 4 AFSC65 5 AFSC66 6
  AFSC04 7 AFSC09 8 Comsrce 9 Prior 10 Priorlog 11 Rating 12
  Basemx 13 Basesup 14 Baselog 15 Basetran 16 Baseproc 17
  Nobase 18 Baseoth 19 ALC 20 AFLCCB 21 EWIW 22 Nowhls 23
  Whlsoth 24 Warexp 25 Combex 26 MobPlan 27 Nocomlog 28 Comoth
  29 AFSCpmgt 30 AFLCpmgt 31 MAJpmgt 32 EWIA 33 Noacqui 34
  Acquioth 35 ILC 36 AFpmgt 37 MAJpgm 38 MAAGor 39 Nointl 40
  Intlgoth 41 Unicmd 42 HQUSAF 43 MAJCOM 44 AForAD 45
  Wing 46 Nostaff 47 Stafoth 48 Nocmder 49 WingCC 50 DCR 51
  DCM 52 DCO 53 SqCClog 54 SqCCoth 55 OtherCC 56
  Mxstaf 58 Transtaf 59 Supstaf 60 Logstaf 61 Procestaf 62
  Nologstf 63 Retstaf 64 Whlstaf 65 Cmbstaf 66 Acqstaf 67
  Ilogstaf 68 Mxexp 69 Tranexp 70 Supexp 71 Logexp 72
  Procexp 73 Othexp 74 Retexp 75 Whlsexp 76 Cmbexp 77
  Acquexp 78 Ilogexp 79/
  3 Nodeg 2 MSnonlg 3 MSAFIT 4 MSlog 5 Doc 6 SOSR 7 SOSS 8
  SOSC 9 SOSNC 10 ISSR 11 ISSS 12 ISSC 13 ISSNC 14 SSSR 15
  SSSS 16 SSSC 17 SSSNC 18 OthPMER 19 OthPMES 20 OthPMEC 21
  OthPMENC 22 PCE 23 Techtrg 24 Compmx 25 Incompmx 26
  Jobmx 27 Intrmx 28 Assmx 29 Trngmx 30 PCEmx 31 PMEmx 32
  Othmx 33 Compsup 34 Incomsup 35 Jobsup 36 Intrsup 37
  Asssup 38 Trngsup 39 PCEsup 40 PMESup 41 Othsup 42
  Comptran 43 Incomptr 44 Jobtran 45 Intrtran 46 Asstran 47
  Trgtran 48 PCEtran 49 PMEtran 50 Othtran 51 Complog 52
  Incomlog 53 Joblog 54 Intrlog 55 Asslog 56 Trnglog 57
  PCElog 58 PMElog 59 Othlog 60 Compproc 61 Incomproc 62
  Jobproc 63 Intrproc 64 Assproc 65 Trngproc 66 PCEproc 67
  PMEproc 68 Othproc 69 Nonmem 70 Solemem 71 Othmem 72
  Profinlv 73 Profatnd 74 Bestprep 75 Replace 76 Genspec 77
  AdvDg 78 AFITDg 79 Active 80/
  4 Multid 2 Cmdexp 3 Staffexp 4 IdentQC 5 SameQC 6
  PMEval 7 Logers 8 Retasgn 9 Whlsasgn 10 Combasp 11
  Acquiasg 12 Ilogasgn 13 Trancomp 14 Supcomp 15 Mxcomp 16
  Proccomp 17 Logcomp 18 Ldrself 19 Mgrself 20 JKself 21
  Crtself 22 Dedself 23 Commself 24 Flexself 25 CSself 26
  Multself 27 Ldrlog 28 Mgrlog 29 JKlog 30 Crtlog 31
  Dedlog 32 Commlog 33 Flexlog 34 CSlog 35 Multlog 36
  DAFSC04 37 DAFSC09 38 DAFSC40 39 DAFSC60 40 DAFSC64 41
  DAFSC65 42 DAFSC66 43 DAFSC31 44
Set blank=0
Value Labels
  AFSC31 1 '31XX'//
```


AFSC40 1 '40XX'/
 AFSC60 1 '60XX'/
 AFSC64 1 '64XX'/
 AFSC65 1 '65XX'/
 AFSC66 1 '66XX'/
 AFSC04 1 '004X'/
 AFSC09 1 '009X'/
 DAFSC31 1 'Duty 31XX'/
 DAFSC40 1 'Duty 40XX'/
 DAFSC60 1 'Duty 60XX'/
 DAFSC64 1 'Duty 64XX'/
 DAFSC65 1 'Duty 65XX'/
 DAFSC66 1 'Duty 66XX'/
 DAFSC04 1 'Duty 004X'/
 DAFSC09 1 'Duty 009X'/
 Comsrce 1 'Academy' 2 'OTS or OCS' 3 'ROTC' 4 'Other'/
 Prior 1 'No prior service' 2 'Prior service under 4'
 3 'Prior service over 4'/
 Priorlog 1 ' No prior service' 2 ' Has logistics prior
 service' 3 ' Non logistics prior service'/
 Rating 1 'Not rated' 2 'Pilot' 3 'Navigator'/
 Basemx 1 'Base level Maintenance'/
 Basesup 1 'Base level Supply'/
 Baselog 1 'Base level Log Plans'/
 Basetran 1 'Base level Transprotation'/
 Baseproc 1 'Base level procurement'/
 Nobase 1 'No retail logistics experience'/
 Baseoth 1 'Other retail experience'/
 ALC 1 'Air Logistics Center experience'/
 AFLCCB 1 'AFLC Career Broadening'/
 EWIW 1 'Education with Industry'/
 Nowhls 1 ' No wholesale logistics experience'/
 Whlsoth 1 'Other wholesale experience'/
 Warexp 1 ' Actual wartime experience'/
 Combex 1 'Combat exercise participation and planning'/
 Mobplan 1 'Mobility planning'/
 Nocomlog 1 'No combat logistics experience'/
 Comoth 1 'Other Combat logistics experience'/
 AFSCpmgt 1 'Program management in AFSC'/
 AFLCpmgt 1 'Program management in AFLC'/
 MAJpmgt 1 'Program management in other MAJCOMS'/
 EWIA 1 'Education with Industry'/
 Noacqui 1 'Other acquisition logistics experience'/
 ILC 1 'International Logistics Center'/
 AFpmgt 1 'HQUSAF Country/Program manager'/
 MAJpmgt 1 'MAJCOM Country/Program manager'/
 MAAGor 1 'Assignment to MAAG or in-country organization'/
 Nointl 1 'No international logistics experience'/
 Intlgoth 1 'Other international logistics experience'/
 Unicmd 1 'Unified Command'/
 HQUSAF 1 'HQ USAF'/
 MAJCOM 1 'MAJCOM'/

AForAD 1 'Numbered Air Force or Air Division'/
 Wing 1 'Wing/Base'/
 Nostaff 1 'No staff level experience'/
 Stafoth 1 'Other staff level experience'/
 Nocmder 1 'No experience as a commander'/
 WingCC 1 'Wing Commander'/
 DCR 1 'Wing Deputy Commander for Resources'/
 DCM 1 'Wing Deputy Commander for Maintenance'/
 DCO 1 'Wing Deputy Commander for Operations'/
 SqCClog 1 'Squadron Commander of other logistics area'/
 SqCCoth 1 'Squadron Commander - Non logistics area'/
 OtherCC 1 'Other commander experience'/
 Mxstaf to Ilogstaf 1 'None' 2 'Less than 18 months'
 3 '18 to 36 months' 4 '37 to 48 months'
 5 'Greater than 48 months'/
 Mxexp to Ilogexp 1 'None' 2 'Less than 18 months'
 3 '18 to 36 months' 4 '37 to 48 months'
 5 'Greater than 48 months'/
 Nodeg 1 'No Advanced degree'/
 MSnonlg 1 'Masters in a Non logistics area'/
 MSAFIT 1 'Masters in logistics from AFIT'/
 MSlog 1 'Masters in logistics area other than AFIT'/
 Doc 1 'Doctorate'/
 SOSR 1 'SOS Residence'/
 SOSS 1 'SOS Seminar'/
 SOSC 1 'SOS Correspondence'/
 SOSNC 1 'SOS Not completed'/
 ISSR 1 'ISS Residence'/
 ISSS 1 'ISS Seminar'/
 ISSC 1 'ISS Correspondence'/
 ISSNC 1 'ISS Not completed'/
 SSSR 1 'SSS Residence'/
 SSSS 1 'SSS Seminar'/
 SSSC 1 'SSS Correspondence'/
 SSSNC 1 'SSS Not completed'/
 OthPMER 1 'Other PME in Residence'/
 OthPMES 1 'Other PME by Seminar'/
 OthPMEC 1 'Other PME by Correspondence'/
 OthPMENC 1 'Other PME Not completed'/
 PCE to Techtrg 1 'None' 2 'one' 3 'Two' 4 'Three' 5 'Four'
 6 'Five or more'/
 Compmx 1 'Not competent' 2 'Level 2' 3 'Level 3' 4 'Level 4'
 5 'Fairly Competent' 6 'Level 6' 7 'Level 7' 8 'Level 8'
 9 'Highly Competent'/
 Incompmx 1 'Not competent in maintenance'/
 Jobmx 1 'Direct job experience'/
 Intrmx 1 'Interactive job experience'/
 Assmx 1 'Association with others in the field'/
 Trngmx 1 'Technical training'/
 PCEmx 1 'PCE'/
 PMEmx 1 'PME'/
 Othmx 1 'Other'/

Compsup 1 'Not competent' 2 'Level 2' 3 'Level 3' 4 'Level
 4' 5 'Fairly Competent' 6 'Level 6' 7 'Level 7' 8 'Level 8'
 9 'Highly Competent'/
 Incomsup 1 'Not competent in supply'/
 Jobsup 1 'Direct job experience'/
 Intrsup 1 'Interactive job experience'/
 Asssup 1 'Association with others in the field'/
 Trngsup 1 'Technical training'/
 PCEsup 1 'PCE'/
 PMEsup 1 'PME'/
 Othsup 1 'Other'/
 Comptran 1 'Not Competent' 2 'Level 2' 3 'Level 3' 4 'Level
 4' 5 'Fairly Competent' 6 'Level 6' 7 'Level 7' 8 'Level 8'
 9 'Highly Competent'/
 Incomptr 1 'Not competent in transportation'/
 Jobtran 1 'Direct job experience'/
 Intrtran 1 'Interactive job experience'/
 Asstran 1 'Association with others in the field'/
 Trgtran 1 'Technical training'/
 PCEtran 1 'PCE'/
 PMEtran 1 'PME'/
 Othtran 1 'Other'/
 Complog 1 'Not Competent' 2 'Level 2' 3 'Level 3' 4 'Level
 4' 5 'Fairly Competent' 6 'Level 6' 7 'Level 7' 8 'Level 8'
 9 'Highly Competent'/
 Incomlog 1 'Not competent in logistics planning'/
 Joblog 1 'Direct job experience'/
 Intrlog 1 'Interactive job experience'/
 Asslog 1 'Association with others in the field'/
 Trnglog 1 'Technical training'/
 PCElog 1 'PCE'/
 PMElog 1 'PME'/
 Othlog 1 'Other'/
 Compproc 1 'Not Competent' 2 'Level 2' 3 'Level 3' 4 'Level
 4' 5 'Fairly Competent' 6 'Level 6' 7 'Level 7' 8 'Level 8'
 9 'Highly Competent'/
 Incomproc 1 'Not competent in procurement'/
 Jobproc 1 'Direct job experience'/
 Intrproc 1 'Interactive job experience'/
 Assproc 1 'Association with others in the field'/
 Trngproc 1 'Technical training'/
 PCEproc 1 'PCE'/
 PMEproc 1 'PME'/
 Othproc 1 'Other'/
 Nonmem 1 'Not a member'/
 Solemem 1 'Member of SOLE'/
 Othmem 1 'Member of Other logistics professional
 association'/
 Profinlv 1 'yes' 2 'no'/
 Profatnd 1 'very often' 2 'often' 3 'occasionally' 4
 'seldom' 5 'never'/
 Bestprep 1 'experience' 2 'advanced education'

```

3 'technical training' 4 'PME' 5 'other'/
Replace 1 'Not in a logistics position currently'
2 'Breadth of experience' 3 'Depth of experience'/
Genspec to Logcomp 1 'Strongly disagree' 2 'Disagree'
3 'Neither agree nor disagree' 4 'Agree' 5 'Strongly
Agree'/
Ldrself 1 'Leadership' /
Mgrself 1 'Managerial Skills' /
JKself 1 'Job Knowledge' /
Crtself 1 'Creativity' /
Dedself 1 'Dedication' /
Commself 1 'Communicative Skills' /
Flexself 1 'Flexibility' /
CSself 1 'Common Sense' /
Multself 1 'Multidisciplined' /
Ldrlog 1 'Leadership' /
Mgrlog 1 'Managerial Skills' /
JKlog 1 'Job Knowledge' /
Crtlog 1 'Creativity' /
Dedlog 1 'Dedication' /
Commlog 1 'Communicative Skills'/
Flexlog 1 'Flexibility' /
CSlog 1 'Common Sense' /
Multlog 1 'Multidisciplined' /

```

```

Sort cases by ID
Set blank=0

```

```

DO IF VALUE(NOBASE) EQ 0
Compute RETSCORE =53
ELSE
COMPUTE RETSCORE=0
END IF

```

```

DO IF VALUE(NOWHLS) EQ 0 OR VALUE(ILC) EQ 1
COMPUTE WHLScore=58
ELSE IF VALUE(NOWHLS) EQ 1 AND VALUE(ILC) EQ 0
COMPUTE WHLScore=0
ELSE
COMPUTE WHLScore=0
END IF

```

```

DO IF VALUE(NOCOMLOG) EQ 0
COMPUTE CMBSCORE =55
ELSE
COMPUTE CMBSCORE =0
END IF

```

```

DO IF VALUE(NOACQUI) EQ 0
COMPUTE AQUSCORE=62
ELSE
COMPUTE AQUSCORE=0

```

END IF

```
DO IF VALUE(NOSTAFF) EQ 0 AND VALUE(MXSTAF) GT 1 OR VALUE(TRANSTAF)
  GT 1 OR VALUE(SUPSTAF) GT 1 OR VALUE(LOGSTAF) GT 1 OR VALUE(PROCSTAF)
  GT 1 OR VALUE(RETSTAF) GT 1 OR VALUE(WHLSTAF)GT 1 OR VALUE(CMBSTAF)
  GT 1 OR VALUE(ACQSTAF) GT 1 OR VALUE(ILOGSTAF)GT 1
  COMPUTE STFSCORE=80
ELSE IF VALUE(NOSTAFF)EQ 0 AND VALUE(MXSTAF)EQ 1 AND VALUE(TRANSTAF)
  eq 1 and VALUE(SUPSTAF)eq 1 and VALUE(LOGSTAF)eq 1 and VALUE(PROCSTAF)
  EQ 1 AND VALUE(RETSTAF)eq 1 OR VALUE(WHLSTAF) eq 1 and VALUE(CMBSTAF)
  EQ 1 AND VALUE(ACQSTAF) EQ 1 AND VALUE(ILOGSTAF) eq 1
  COMPUTE STFSCORE=0
ELSE
  COMPUTE STFSCORE=0
END IF
```

```
DO IF VALUE(NOCMDER) EQ 0 AND VALUE(DCR) EQ 1 OR VALUE(DCM) EQ 1
  OR VALUE(SQCCLOG) EQ 1
  COMPUTE CMDSCORE=90
ELSE IF VALUE(NOCMDER) EQ 0 AND VALUE(DCR) EQ 0 AND VALUE(DCM)
  EQ 0 and value(sqcclog) eq 0
  COMPUTE CMDSCORE=0
ELSE
  COMPUTE CMDSCORE=0
END IF
```

```
DO IF VALUE(NODEG) EQ 0
  COMPUTE DEGSCORE=95
ELSE
  COMPUTE DEGSCORE=0
END IF
```

```
DO IF VALUE(PCE) GT 1
  COMPUTE PCEScore=73
ELSE
  COMPUTE PCEScore=0
END IF
```

```
COMPUTE CREDIT=0
COMPUTE PMEScore=0
DO IF (VALUE(SSSR) EQ 1 OR VALUE(SSSS) EQ 1 OR VALUE(SSSC) EQ 1)
  COMPUTE CREDIT=CREDIT+1
ELSE
  COMPUTE CREDIT=CREDIT
END IF
```

```
DO IF (VALUE(ISSR) EQ 1 OR VALUE(ISSS) EQ 1 OR VALUE(ISSC) EQ 1)
  COMPUTE CREDIT=CREDIT+1
ELSE
  COMPUTE CREDIIT=CREDIT
END IF
```

```
DO IF (VALUE(SOSR) EQ 1 OR VALUE(SOSS) EQ 1 OR VALUE(SOSC) EQ 1)
  COMPUTE CREDIT=CREDIT+1
ELSE
  COMPUTE CREDIT=CREDIT
END IF
```

```
DO IF (VALUE(OthPMER) EQ 1 OR VALUE(OthPMES) EQ 1
  OR VALUE(OthPMEC) EQ 1)
  COMPUTE CREDIT=CREDIT+1
ELSE
  COMPUTE CREDIT=CREDIT
END IF
```

```
DO IF (CREDIT GE 2)
  COMPUTE PMEScore=74
ELSE
  COMPUTE PMEScore=0
END IF
```

```
DO IF VALUE(compmx) GE 5
  COMPUTE MXSCORE=39
ELSE IF VALUE(compmx) LT 5
  COMPUTE MXSCORE=0
END IF
```

```
DO IF VALUE(compsup) GE 5
  COMPUTE SUPSCORE=32
ELSE IF VALUE(compsup) LT 5
  COMPUTE SUPSCORE=0
END IF
```

```
DO IF VALUE(complog) GE 5
  COMPUTE LOGSCORE=33
ELSE IF VALUE(complog) LT 5
  COMPUTE LOGSCORE=0
END IF
```

```
DO IF VALUE(comptran) GE 5
  COMPUTE TRXSCORE=21
ELSE IF VALUE(comptran) LE 5
  COMPUTE TRXSCORE=0
END IF
```

```
DO IF VALUE(compproc) GE 5
  COMPUTE PRCSCORE=29
ELSE IF VALUE(compproc) LE 5
  COMPUTE PRCSCORE=0
END IF
```

```
DO IF VALUE(NONMEM) EQ 0
  COMPUTE LSMSCORE=17
ELSE
```

COMPUTE LSMScore=0
END IF

DO IF VALUE(PROFINLV) EQ 1
COMPUTE LSIScore=35
ELSE
COMPUTE LSIScore=0
END IF

DO IF VALUE(PROFATND) LE 3
COMPUTE LSAScore=10
ELSE IF VALUE(PROFATND) GT 3
COMPUTE LSAScore=0
ELSE
COMPUTE LSAScore=0
END IF

DO IF VALUE(LDRSELF) EQ 1
COMPUTE LDRScore=26
ELSE
COMPUTE LDRScore=0
END IF

DO IF VALUE(MGRSELF) EQ 1
COMPUTE MGRScore=17
ELSE
COMPUTE MGRScore=0
END IF

DO IF VALUE(JKSELF) EQ 1
COMPUTE JKScore=19
ELSE
COMPUTE JKScore=0
END IF

DO IF VALUE(CRTSELF) EQ 1
COMPUTE CRTScore=12
ELSE
COMPUTE CRTScore=0
END IF

DO IF VALUE(DEDSELF) EQ 1
COMPUTE DEDScore=12
ELSE
COMPUTE DEDScore=0
END IF

DO IF VALUE(COMMSELF) EQ 1
COMPUTE COMScore=14
ELSE
COMPUTE COMScore=0
END IF

DO IF VALUE(FLEXSELF) EQ 1
COMPUTE FLXSCORE=11
ELSE
COMPUTE FLXSCORE=0
END IF

DO IF VALUE(CSSELF) EQ 1
COMPUTE CSSCORE=18
ELSE
COMPUTE CSSCORE=0
END IF

DO IF VALUE(MULTSELF) EQ 1
COMPUTE MLTSCORE=15
ELSE
COMPUTE MLTSCORE=0
END IF

COMPUTE ALSCORE=VALUE(RETSCORE)+VALUE(WHLSCORE)+VALUE(CMBSCORE)+
VALUE(AQUSCORE)
COMPUTE APSCORE=VALUE(STFScore)+VALUE(CMDSCORE)
COMPUTE ETSCORE=VALUE(DEGSCORE)+VALUE(PCEScore)+VALUE(PMEScore)
COMPUTE PIScore=VALUE(LSMScore)+VALUE(LSIScore)+VALUE(LSAScore)
COMPUTE TCSCORE=VALUE(MXScore)+VALUE(SUPScore)+VALUE(LOGScore)+
VALUE(TRXScore)+VALUE(PRCScore)
COMPUTE QCSCORE=VALUE(LDRScore)+VALUE(MGRScore)+VALUE(JKScore)+
VALUE(CRTScore)+VALUE(FLXScore)+VALUE(EDScore)+VALUE(COMScore)+
VALUE(CSScore)+VALUE(MLTScore)
COMPUTE EXPSCORE=VALUE(RETSCORE)+VALUE(WHLSCORE)+VALUE(CMBSCORE)+
VALUE(AQUScore)+VALUE(STFScore)+VALUE(CMDScore)
COMPUTE EDScore=VALUE(DEGScore)+VALUE(PCEScore)+VALUE(PMEScore)
COMPUTE PFAScore=VALUE(MXScore)+VALUE(SUPScore)+VALUE(LOGScore)+
VALUE(TRXScore)+VALUE(PRCScore)+VALUE(LSMScore)+VALUE(LSIScore)+
VALUE(LSAScore)+VALUE(LDRScore)+VALUE(MGRScore)+VALUE(JKScore)+
VALUE(CRTScore)+VALUE(EDScore)+VALUE(COMScore)+VALUE(MLTScore)+
VALUE(FLXScore)+VALUE(CSScore)
COMPUTE MODScore=VALUE(EXPScore)+VALUE(EDScore)+VALUE(PFAScore)

DO IF RATING EQ 1
COMPUTE CAR=1
ELSE
COMPUTE CAR=0
END IF

DO IF DAFSC04 EQ 1
COMPUTE LDAFSC=1
ELSE IF DAFSC09 EQ 1
COMPUTE LDAFSC=2
ELSE IF DAFSC40 EQ 1
COMPUTE LDAFSC=3
ELSE IF DAFSC60 EQ 1
COMPUTE LDAFSC=4


```
ELSE IF DAFSC64 EQ 1
  COMPUTE LDAFSC=5
ELSE IF DAFSC65 EQ 1
  COMPUTE LDAFSC=6
ELSE
  COMPUTE LDAFSC=7
END IF
```

```
SELECT IF NOT DAFSC31
```

```
DO IF VALUE(MODSCORE) GT 649.681
  COMPUTE GENSCORE=1
ELSE
  COMPUTE GENSCORE=0
END IF
```

```
FREQUENCIES Variables=GENSCORE/
  STATISTICS=ALL
```

```
TEMPORARY
SELECT IF VALUE(GENSPEC) NE 3
DO IF VALUE(GENSPEC) GT 3
  COMPUTE GENSELF=1
ELSE
  COMPUTE GENSELF=0
END IF
```

```
FREQUENCIES Variables=GENSELF/
  STATISTICS=All
```

```
TEMPORARY
SELECT IF VALUE(GENSPEC) NE 3
DO IF VALUE(GENSPEC) GT 3
  COMPUTE GENSELF=1
ELSE
  COMPUTE GENSELF=0
END IF
```

```
CROSSTABS TABLES=GENSELF BY GENSCORE
  STATISTICS 1 3
```

```
TEMPORARY
SELECT IF VALUE(GENSPEC) NE 3
DO IF VALUE(GENSPEC) GT 3
  COMPUTE GENSELF=1
ELSE
  COMPUTE GENSELF=0
END IF
```

```
CROSSTABS TABLES=GENSCORE BY GENSELF BY LDAFSC
  STATISTICS 1 3
```

FREQUENCIES Variables=GENSPEC/
STATISTICS=All

CROSSTABS TABLES=GENSPEC BY GENSCORE
STATISTICS 1 3

TEMPORARY
SELECT IF CAR=1
ONEWAY MODSCORE BY LDAFSC(1,7)/
RANGES=SCHEFFE
STATISTIC 1

TEMPORARY
SELECT IF CAR=1
ONEWAY EXPSCORE BY LDAFSC(1,7)/
RANGES=SCHEFFE
STATISTIC 1

TEMPORARY
SELECT IF CAR=1
ONEWAY EDSCORE BY LDAFSC(1,7)/
RANGES=SCHEFFE
STATISTIC 1

TEMPORARY
SELECT IF CAR=1
ONEWAY PFAScore BY LDAFSC(1,7)/
RANGES=SCHEFFE
STATISTIC 1

TEMPORARY
SELECT IF CAR=1
FREQUENCIES Variables=All/
STATISTICS=All

FINISH

Appendix C: Respondents' Comments

Hard to understand definitions for combat/retail/whole-sale/acquisition logistics expect your replies will be muddled by the lack of clear definition of these terms. Also, I consider some of my assignments as both combat and retail logistics.

I, also find lack of clear distinction between staff and other than staff.

You can train a person all you want but the bottom line to me is the person's individual integrity and attitude towards the job. If we have positive people we can accomplish almost anything. I think some of our professional training and nearly all of the "Professional Association" stuff is a very pure form of waste. A good loggie: 1. understands the mission 2. can communicate the mission to people in a positive manner 3. gets the mission accomplished by motivating people.

I think this questionnaire is a good one. Hopefully, you get a lot of considered replies. My responses should reflect this, but I would like to restate what I think is vital for a senior logistician.

1. Broad background-We need more cross flow among the disciplines before making O-6.

2. More emphasis on continuing education that stresses the inter-relationship among the disciplines, more important is education in combat logistics. Our bottom line is (and must be) the ability to operate in a combat situation.

Your questionnaire gently skirts a key issue, "careerism" vs: "professionalism", in other words the conflict which often exists between getting promoted (careerism), and being a "well rounded" logistics professional with the career broadening so strongly pushed by Lt. General Marquez, the HQ USAF/LE.

To get promoted takes performance, professionalism, dedication, and the sine ova hon, opportunity. Opportunity comes from being known, so you can get the tough (and good) jobs like commander, and that comes from being identified with a MAJCOM (generally MAC for transporters). Sometimes that conflicts with career "broadening" (which is a synonym for "flattening") - so a logistics officer who wants to be a colonel will do much better to stick to his specialty, taking care to broaden his experience within that specialty with staff, line, joint and overseas (both Pacific and European) service. You can't do everything without turning into a dilettante, so you'd best specialize - with no more than one (if that many) "career broadening" assignments.

The problem with all this is the USAF "up root" promotion system - which isn't going to be changed by the logistics

community, compounded by the waves of rated officers who wash in and out of support jobs (such as logistics) depending on the pilot surplus or shortage in any particular year.

It is an imperfect world - with many "outside" influences, so don't be mesmerized by the scope of your questionnaire, to the exclusion of all those outside influences. Good Luck!

Doing an outstanding job in terms of the following measures of merit have little to do with promotability:

- Leadership
- Management
- Getting the job done
- Staying combat ready
- Keeping the schedule
- Being economical/efficient

The key is, unfortunately, who you know and obtaining appropriate visibility. Gaining broad experience and doing excellent work aren't enough. Filling the squares is necessary but not sufficient. Consequently, senior logistics leadership is weak.

Of all the logistics courses I have taken--the most job related were taught by a civilian university under contract to the AF. 100% job related! Definitely more productive than AFIT or PME courses. No sour grapes--just the way I saw it. They gave us a tool to use.

Your survey is skewed to a view that experience is 36-48 months. In maintenance, basic experience is 36-48 months. Middle management experience is 60-72 months in the field and senior level is greater than 84 months. Less experience at any level equals unit mission problems, people problems, misdirection, non professional leadership, bias in assignment of command billets, etc..

Difficult questionnaire to answer since experience in supply, transportation, maintenance was not direct. I had both communications/maintenance officer and as detachment commander with supervision responsibilities but little technical preparation.

Some of my answers may be invalid or skewed because I don't agree with your assumption that Logisticians need to be officers. Some of our best "get it done" and "take care of business" people are senior NCO's or civilians. Recommend you carefully screen your replies to insure all survey respondents understand your assumptions. Notice that question #65 is the first time you mentioned officers.

I thought the quality of the questions was very good and carefully thought out. I've spent the vast majority of my career in strictly wing/sqn level maintenance jobs. In my current job as TAFT/CC a broader background in logistics, supply, procurement, etc. would be extremely useful and would certainly enable me to feel more competent and comfortable with critical decisions on many issues.

Although you didn't request any additional comments, I opted to offer them anyway. I believe we in the various logistics career fields are generally much too narrow in our viewpoints. Rather, we should develop a system to cross-feed without undue risk into related fields. Logistics Plans and Transportation are especially relevant to each other. Procurements is virtually a MUST for all logisticians as well. If we want to develop well rounded logisticians for the future, we had best figure out how to structure the system to encourage at least some cross flow and for increased exposure along these lines.

If leather flying jackets will keep pilots, perhaps a gold plated pager will keep our Maintenance officers.

Our senior leaders must understand that logistics will win or lose the war. We must grow more senior officers from within. Also, maintenance is very short on officers compared to the level of responsibility, etc. We should cut the crew ratio down based on real ability to fly and convert flying officer slots to support. For any weapon system a crew ratio of over 1.5 is overkill! Issue one aircraft to each pilot and let him fly it. The open support structure along with logistics can be operated with much less experience. I'm tired of working for winged warriors who don't understand the importance of logistics (present boss excepted), yet at the higher ranks they top load to "HELP US".

To be a good military logistician, you must have the capability/ability to give 110% to any of the nine areas listed in questions A & B, plus others at all times.

I feel quite strongly that first term airman or new officers should not be allowed into the 66XXX career field--there is too much at stake in the Air Force of the 80's - 90's.

First my credentials, I am now a supply squadron commander, I have been the War Readiness Arterial Police Officer at HQ USAF, served on the IG at TAC, the staff at USAFE, IUSMAG in Korea and also generally floated around the Pacific. I was the senior USAF Supply Manager for 86 and the junior one in 1979. I am going now to be a division chief in supply at HQ TAC.

continued...

I have come in contact with almost every senior logistician in the AF from AFLC to the MAJCOM LG's. Most are technically incompetent and have little or no idea what occurs in either base or wholesale level logistics. We take operators at the 0-6 level, send them to a few bullshit AFIT or "senior logistician" courses and explain that proven leadership can overcome ignorance or even worse, dimly remembered bar talk from their jock days. As Admiral Grimstad (former DCA WAD) once told Secretary Orr, the Air Force has no senior logisticians who possess any detailed knowledge of how logistics works. Sending me to an AFIT course could not make me an expert in F-4 combat employment. Why do we think the same type of survey course will teach a pilot how to understand the intrinsic relationship between depot repair programs and new item procurement or between logair frequency and base stock levels? Frustration is trying to explain to a MAJCOM LG something so basic that everyone of your two stripers know. Kill the survey courses and send the OPS guys to basic supply or maintenance school.

I understand what you're trying to do--I went thru it myself. I think your questionnaire missed the mark some. I spent six years as a base level log planner. I picked up good maintenance, supply, and transportation experience. I don't feel comfortable that I showed that on your questionnaire. I also spent two years in the KC-10 program working contracting/logistics. Was that acquisition staff work, or "not staff work"? Again, I'm not sure that the optical scanner will pick up what I think. I also spent three years at base level working mobility (as a log planner). We're probably playing with words, but I don't consider mobility, combat logistics any more that writing Base Support Plans or Log Annexes to Deployment Plans.

Not sure what you're trying to arrive at, but a couple of words from my perspective as a Deputy Commander for Resources. I think I am a respectable DCR for several reasons:

- a. Broad background and experience.
- b. Ability to think, create, and innovate. (I'm finding that many of my officers in transportation, supply, resource plans, comptroller, and contracting are very "stove piped" in their thinking. The variety of assignments that I have had helps with the big picture and providing a focus to what we are trying to establish at base level "Realistic War Fighting Capability".)

Believe it or not, I think AFIT (Grad Log) helped me. I think the assignment in the Pentagon helped by working the logistics budget/POM. Were either essential? No! Did they help? You're damn right they did!

continued...

I'm struggling with PME (AWC) and working 12 hours a day at the same time. Is PME essential? No, but it helps. It keeps you thinking. It helps you discipline your time.

You asked if I was a member of SOLE. I'm not now. I was a member for 6 to 8 years. While in HQ AFLC and while in the KC-10 program, I found the SOLE affiliation beneficial. An outlet for a presentation and an opportunity for a paper. The optical scanner won't pick that up.

The bottom line from my perspective is difficult to draw. Yes, I've had a broad general education across a wide range of the logistics career fields. Does that make me a better DCR than a "stove piped supply toad"? Maybe, maybe not. It depends on a lot of variables that I can't put my finger on and I'm there! Please don't let the statistics provide you with any absolutes. I don't think there are any.

Our civilian equivalents as aircraft maintenance managers are far more qualified in the discipline than us. We need more specialization and much more training in aircraft maintenance and aero technology, not less. I am sure the same applies in transportation and supply, but in aircraft maintenance it is more so. An aircraft maintenance officer without technical competence of at least a knowledge/identification/theory level in the nuts and bolts of airplanes is not only not effective--he/she is just plain dangerous. In a technical age, an aircraft maintenance officer must combine leadership and managerial competence with technical ability. We do not "count beans" and move pallets, we sign away our lives that planes are safe to fly--and we do it as second lieutenants on up.

I would state that there is no one "best" combination that would identify a good logistics leader. The same traits that make any leader "good" apply to logistics.

I assumed command of a transportation unit and in twelve months took it from one of the worst to the best in the command. I had no previous transportation background. But, in professional modesty, I am a versatile manager, not afraid to try something new. By being flexible and letting my middle managers manage and be the technical experts they are, I overcame any lack of technical expertise.

In my view, logistics must move away from the old stereotypes and get into dynamic management to keep growing with our dynamic future.

Career logisticians are subjected to continuing stressful situations. The environment encourages long hours and emotional demands are high for those dedicated individuals who are concerned about the mission. "Burn-out" is a very

real problem. Supervisors seldom recognize the signs in their people, ignore what they do see, and frequently toss the victims aside (people are a disposable resource in too many situations). Senior logisticians need to be able to manage stress, in themselves and in their people. While burn-out is not solely a "logistics career problem", the logistics environment is more apt to be fraught with stressful situations. (Note: My observations are based on two and a half years of visiting military units as an Air Force management consultant, in addition to my own logistics experience.)

Your questionnaire is far too complicated--by the time I got thru page 8, I was more than mildly irritated. I don't think you can expect valid and well reasoned answers from as many questions of this type as you've used. As a senior military logistician, I don't have time to mull over this thing endlessly.

Thank you for the opportunity to participate in the survey. I think definitions of retail, wholesale, combat logistics would have enhanced the survey.

Thank you for the opportunity to help future "loggies" with this information. I'm retiring in August. My career has been a good one and prepared me well for the transition. Will miss the good people and experiences we've had. Take care of the Logistics World and give the field people good personnel and equipment.

I have difficulty answering your questionnaire, because what a senior military logistician is and what the duties, responsibilities, and expectations are is left up to individual opinion. This has a major impact on what level of competency is required and what experience is desirable.

When I was a grad log student, I had trouble understanding why contracting (procurement) was part of logistics. When I was in USAFE, I advocated removing contracting from the DCS/Logistics. My current view is that contracting, at base level, is a subset of Supply and (Civil Engineering)/Services. There may be a similar relationship in the Air Logistics Centers; I don't know for sure because I've never worked in an ALC. In AFSC and AFCC, where I do have experience, contracting has little relationship to logistics. MPC has taken contracting out of "palace Log" and moved it to "Palace Acquire". I was fascinated by my interactions with my fellow loggies as an action officer in USAFE, and I regret never having the opportunity (yet) to work in AFLC, but, in summary, I don't believe contracting should be considered part of logistics.

Questions 68-72 deserve more than agree/disagree responses. If indeed we are "growing" senior logisticians, certainly serious thought needs to be applied to career development. How much of each should be dependent upon how the logistician is developing and the needs of the service?

Questions 73-77 certainly growth here is desirable, but, we need to look again at how the needs of the service will be best served. No "blanket" policy that is applied to a warm body that says "if you have these _____ experiences, then you are a senior logistician" can be applied. Certainly, there are some general guides that should be used. However, to expect an uniform experience level throughout the logistics disciplines would be foolish.

A & B pretty much as above--My own view is that as humans we will have to make the best of our individual talents. But, that a certain understanding that each of these attributes is highly desirable, and the smooth blending of each, according to one individuals ability, is how our military logisticians can best be characterized.

Senior (DCR) positions are filled randomly by wing commanders from rated positions for those who have displayed sound judgement. Only in the LGS, LGC, and CPTS areas are the leaders career specialists. LGT and LGX are "anybodies".

Also, DCR's and their assistants, particularly, are given little-to-no formal education in logistics in preparation for assignment. The jobs don't need a lot of in-depth knowledge of the LG specialties because the position primarily involves a common-sense, staff approach to wing politics to obtain adequate base-level resources. And, to do battle for, or at least defend, your lieutenants and junior captains who are chiefs of LGX and LGC divisions against crusty old intimidating O-5's and O-6's. Why the devil does the Air Force give the bulk of its annual budget to these most junior of all LG units in the form of contracting officers and give them the smallest staffs with the highest turnover rate (because we won't pay contract administrators what their jobs are truly worth in workload and/or daily pressure)?????

All you need to do is look at the retention of O-4 and O-5 in 6416 career field this year and you will have an answer to crossflow of log career fields. We have such a void of experienced supply officers that we will have to crossflow others into 64.

Questions 13-34--not sure what you mean by staff and non-staff experience.

Questions 42-51--technical competency should not be viewed as a prerequisite for managing/leading in that functional area.

Questions A & B--it would have been wiser to either prioritize characteristics or weigh on a scale the relative importance of each.

Questionnaire is too long. You did not provide instructions on whether to fill-in personal data on questionnaire collection form.

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Block 19

There has been interest in the issue concerning the qualifications of senior military logisticians and their ability to handle the totality of today's logistics system. Captain Zavada assessed the qualities of Air Force colonels serving in logistics career fields one year prior to this research. Her study was based on a model of the professional military logistician created by Captain Allan Overbey. This research extends the research of Zavada and Overbey by applying Overbey's model, called the AFIT Model, to the next generation of senior military Air Force logisticians; lieutenant colonels. The experience and qualities of lieutenant colonels currently serving in logistics related career fields were assessed and evaluated to determine how logisticians fit the AFIT Model. The results of the analysis of the lieutenant colonels was then compared to the results of an analysis on the colonels studied by Zavada. The same survey used by Zavada was used to gather background information on the lieutenant colonels. The same weighting system designed by Zavada, using a dichotomous scoring method, was used to score the respondents against the AFIT Model based on their background information. A score of 100 points indicated a "perfect fit" to the AFIT Model. There were only 3 perfect scores out of 939 returned surveys.

This research provided extensive information about the experience and qualities of both colonels and lieutenant colonels in Air Force logistics positions. It compared these two groups, showing their similarities and differences, and gave possible reasons for the differences identified. Recommendations were made for further related research to determine if the experience and qualities of today's senior logisticians meet current goals, or, if guidance needs to be created to "mold" future logisticians to meet future Air Force needs.

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